STIC-Biotech/ChemLib

112370

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P-	Sent:
	To:
	C

Richter, Johann

nt: Monday, January 19, 2004 8:52 AM

Cc: Subject: Nguyen, Dave Chan, Christina; STIC-Biotech/ChemLib

RE: Rush Search request 10/068,160

Approved.

Johann R. Richter, Ph.D., Esq.
Supervisory Patent Examiner
Biotechnology and Oxgànic Chemistry
Art Unit 1621
703-308-4532

----Original Message-----

From:

Nguyen, Dave

Sent:

Friday, January 16, 2004 8:57 PM

To: Cc: Richter, Johann

Subject:

Chan, Christina; STIC-Biotech/ChemLib Rush Search request 10/068,160

This case is due this bi-week! please rush: Please search SEQ ID NOS: 1, 54, 73, and 74 with the provision that the hit oligos are less than 500 nucleotide residues.

Thanks Dave Nguyen Ramsen Bldg 2D31

2D31 . 571-272-0731



0.
Searcher: Shepparic
Phone:
Location:
Date Picked Up:
Date Completed: 1/22 CY
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

VENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
DRLink:
Lexis/Nexis:
Sequence Sys.:
WWW/Internet:
Other (specify):

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.



STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 112370

TO: Dave Nguyen Location: rem/2d31

Art Unit: 1632 Jan 22, 2004

Case Serial Number: 10/068160

From: P. Sheppard

Location: Remsen Building

Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes	
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Minimum DB
Maximum DB
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seq length: 500
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/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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US-09-0171-156A-7
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US-08-433-124A-137
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Sequence 14, Appl	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 13, Appl	Sequence 13, Appl	Sequence 5, Appli	Sequence 1, Appli	Sequence 70, Appl	Sequence 70, Appl	Sequence 13, Appl	Sequence 4239, Ap	•	Sequence 40, Appl		Sequence 40, Appl	Sequence 91, Appl

ALIGNMENTS

US-08-433-126A-137/c GENERAL INFORMATION: APPLICANT: STEPHEN APPLICANT: SCHNEID APPLICANT: GOLD, LA Patent No. Sequence 137 PILING DATE: 10-JUNE-1991 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/536,428 PILING DATE: 11-JUNE-1990 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/964,624 FILING DATE: 21-OCTOBER-1992 ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson REFERENCE/DOCKET NUMBER: 33,215 REFERENCE/DOCKET NUMBER: NEX31 TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333 SOFTWARE: Wordberfect 6.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/433,12 FILING DATB: 03 MAY 1995 CLASSIFICATION: 514 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/714,131 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 3 1/2 COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS CORRESPONDENCE ADDRESS: ADDRESSEE: Swanson & Bratschun, L.L.C. STREET: 8400 E. Prentice Avenue, Suite TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: STREET: 8400 E. I CITY: Englewood STATE: Colorado COUNTRY: USA ZIP: 80111 STRANDEDNESS: TOPOLOGY: li ENGTH: 5688935 nucleic acid Application US/08433126A (303) STEPHENS, ANDREW SCHNEIDER, DAN single LARRY 793-3433 US/08/433,126A 07/964,624 07/536,428 33,215 ER: NEX31.2 1/2 diskette, 1.44 200 គ្គ

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RESULT 2
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    Matches
                                  Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                           OTHER INFORMATION: FEATURE:
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REFERENCE/DOCKET NUMBER: NE:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/433,124A FILING DATE: 03 MAY 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 10-JUNE-1991 PRIOR APPLICATION DATA:
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APPLICANT: GOLD, LARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION:
                                                                                                                                        STRANDEDNESS: single TOPOLOGY: linear
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    Local Similarity 100 les 13; Conservative
                                                                                                                                                                   TYPE: nucleic acid
                                                                              OTHER INFORMATION:
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8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                  (303) 793-3433
OR SEQ ID NO: 137:
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100.0%;
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US-08-976-413A-137/c
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; Patent No. 6127119
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                                                                                                                           OTHER INFORMATION: US-08-976-413A-137
                                                                              Query Match
Best Local (
                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING LALL.
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,
APPLICATION NUMBER: 08/433,
TOTALS DATE: 03-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WORDFEFECT 8.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/976,413A
FILING DATE: 21-NOVEMBER-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 8400 CITY: Englewood CTATE: Colorado
                                                                                                                                                                     FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATE: 07/964,624
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 11-JUNE
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                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET NUMBER OF SEQUENCES: 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: SPECK, ULRICH
                                                                                                                                                                                                                       LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                                                                                                                                                             TOPOLOGY: linear
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8400 E. Prentice Avenue, Suite
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                                                               Conservative
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                                                          65.0%; Score 13; DB 3; 100.0%; Pred. No. 55; tive 0; Mismatches
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                                                                                                                                                                            All C's are 2'-F cytosine
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RESULT 4 PCT-US96-06059-137/c

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US-08-433-126A-138/c
; Sequence 138, Application US/08433126A
; Patent No. 5688935
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                                                                             RESULT 5
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                                                                                                                                                                                                           Query Match
Best Local
             Patent No. 5688935
GENERAL INFORMATION:
                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM pc compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 6.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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PPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 8400 E. Prentice Avenue, Suite 200 CITY: Englewood STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US96/06059 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 21-00
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FILING DATE: 03-MA
                                                                                                                                                                                                                                                                                                           OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: NEX31.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Barry J. Swanson
REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                           OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
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                                                                                                                               ATCGATGCAGGGG 1
                                                                                                                                                                                                                                                                                                                                                                                           31 base pairs
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GOLD, LARRY
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                                                                                                                                                                                             Conservative
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 STEPHENS, ANDREW
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                                                                                                                                                                                                             65.0%; Score 13; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                           All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                             All U's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07/536,428
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                                                                                                                                                                                               Indels
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US-08-433-124A-138/c
Sequence 138, Application US/08433124A
Patent No. 5750342
GENERAL INFORMATION:
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                                                                                                                                                                                                       RESULT 6
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; OTHER INFORMATION:
US-08-433-126A-138
                                                                                                                                                                                                                                                                                                          Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION NUMBER: 07/964,624
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: WordPerfect 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/433,126A
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                                          CORRESPONDENCE ADDRESS:
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                                                                                                    APPLICANT: SCHNE
APPLICANT: GOLD,
                                                                                                                              APPLICANT:
                                                           NUMBER OF SEQUENCES:
                                                                      ITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE ITLE OF INVENTION: TARGET
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Barry J. Swan
REGISTRATION NUMBER:
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CITY: Englewood
                         ADDRESSEE:
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             8400 E.
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                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                               SCHNEIDER, DAN
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             Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
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100.0%; Pr
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                                                                                                                                                                                                                                                                                                                        Score 13;
; Pred. No.
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; OTHER INFORMATION:
US-08-433-124A-138
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Matches
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LENGTH: 38 base pairs
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APPLICATION NUMBER: 07/964,6:
FILING DATE: 21-OCTOBER-1992
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APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
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                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: STEPHENS, ANDREW
APPLICANT: GOLD, LARRY
APPLICANT: SPECK, ULRICH
APPLICANT: SPECK, ULRICH
ITTLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
                                                                                                      COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
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CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                               CITY: Englewood
STATE: Colorado
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                                         APPLICATION DATA
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                                                                                                                                                                                                                                                                                                                                                                                                   E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                            USA
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                                                                                                  IBM pc compatible SYSTEM: MS-DOS
                                                                        WordPerfect 8.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             All U's are 2'-F uracil
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US/08/976,413A
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; Length 38; 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.44
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PCT-US96-06059-138/c
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                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96
FILING DATE:
CLACCTOR
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                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER:
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
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                                                                                                                                          COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 38 base pairs TYPE: nucleic acid STRANDEDNESS: single
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                                                                     CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
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                                                                                                                                                                                                          8011
                                                                                                                                                                                                                                    T: 8400 E. Prentice Avenue,
Englewood
Colorado
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                                                                                                                                                                                                                                                                                    Swanson & Bratschun, L.L.C.
                           03-MAY-1995
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                                                                                                                                                                           Diskette,
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                                                                                                                                                                                                                                                                                                                               TARGET
                                                                                                                                                                                                                                                                                                                                             NUCLEIC ACID LIGANDS OF TISSUE
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08/433,126
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Pred. No.
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                                                                                                                                                                                                                                                                       Suite 200
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FILING DATE:

03-MAY-1995

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 07/90 FILING DATE: 21-OCTOBER-1 ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                     APPLICATION NUMBER: 07/714,131 FILING DATE: 10-JUNE-1991 PRIOR APPLICATION DATA:
                                                                                                                                                              SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                   CLASSIFICATION: 514
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                         PPLICANT: STEPHENS, ANDREW
PPLICANT: SCHNEIDER, DAN
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                                                                                                                                   APPLICATION NUMBER: FILING DATE: 03 MA
                                                                                                                                                                                         COMPUTER: IBM pc
                                                                                                                                                                                                                                                                                        CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                              TLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TLE OF INVENTION: TARGET
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                                                                                                                                                                                                                                                                         COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                            APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                   E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite
              TE: 11-JUNE-1990
CATION DATA:
                                                                                                                                                                                                                                                                         USA
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                                                                                                                                                                                              IBM pc compatible
SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (303) 793-3333
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                                                                                                                                   03 MAY 1995
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                                         07/536,428
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07/964,624
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Pred. No.
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US-08-433-124A-59/c
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; OTHER INFORMATION:
US-08-433-126A-59
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Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 59, Application US/08433124A Patent No. 5750342
                                                                               APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
NAME: BAITY J. SWANSON
REGISTRATION NUMBER: 33,215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (303) 793-34.
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
TELEFAX: (303) 793-3433 NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: 241
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                                                REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS SOFTWARE: WordPerfect 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 8400 E. Prentice Avenue, Suite 200 CITY: Englewood STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 03 MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
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                                TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Swanson & Bratschun, L.L.C.
                              (303) 793-3333
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                                                                                                                                                                                                                                                                                                              03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                                   Diskette,
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                                                                  NEX31.2
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US-08-976-413A-59/c
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                                            TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 5
SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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LENGTH: 87 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/4:
FILING DATE: 03-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: WordPerfect 8.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 11-JUNE PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
PILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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APPLICANT: SPECK, ULRICH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET MBER OF SEQUENCES: 440
                                                                                                                                                                                    REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 21-OCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: 15M PC
OPERATING SYSTEM:
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OTHER INFORMATION: All C's are 2'-F cytosine
                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/976,413A
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o. 6127119
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8400 E. Prentice Avenue, Suite 200
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                                                                                                                                                                                                                     J. Swanson
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21-OCTOBER-1992
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RESULT 12
PCT-US96-06059-59/c
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CT-US96-06059-59
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Best Local (
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INFORMATION FOR SEQ ID NO:
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APPLICATION UMBER: 07/964,6

FILING DATE: 21-OCTOPED

ATTORNEY / PRIOR DETAILS ATTORNEY / PRIOR DATE: 21-OCTOPED
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                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/4
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
             FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                             FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/53
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                                                            FEATURE:
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                             OTHER INFORMATION: All C's are 2'-F cytosine
                                                                                           STRANDEDNESS:
                                                                                            LENGTH: 87 Date acid
                                                                                                                                                                                    TELEPHONE:
                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                          TOPOLOGY: linear
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13; Conservative
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00 E. Prentice Avenue, Suite 200
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                All U's
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                are 2'-F uracil
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US-09-005-069-91/c
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US-08-630-822A-91/c
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                                                                                                                                                        Sequence 91, Application US/09005069
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Best Local
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                                                                                                                                           Patent No.
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APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: MALLENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
              GENERAL INFORMATION:
APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
NUMBER OF SEQUENCES: 107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: CONNELL, GARY J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 26
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/630,822A
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: CDNA
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ATTORNEY/AGENT INFORMATION:
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 CORRESPONDENCE ADDRESS
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(307 Th NO: 91:
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/630,822
FILING DATE: 11-APR-1996
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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CITY: Denver
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/005,069
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                                                                                                  ZIP: 80202

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PBatentin Release #1.0, Version

CURRENT APPLICATION DATA:
                               ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 88
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                                                 APPLICATION NUMBER: US/09/171,156A FILING DATE: 04-Mar-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                 STATE: CO
NAME: Connell, Gary J.
REGISTRATION NUMBER: 32,020
                                                                                                                                                                                                                               COUNTRY: U.S.A.
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REFERENCE/DOCKET NUMBER: 2618-17-C4-PUS

TELECOMMUNICATION INFORMATION:
TELEPHONE: 303/863-9700
TELEFAX: 303/8
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Pred. ŏ. 3, the number of results predicted by chance to have

REFERENCE AUTHORS

Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 32 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)

immune response

VERSION KEYWORDS SOURCE

ORGANISM

synthetic construct synthetic construct rtificial

sequences.

RESULT 1
AX194432
LOCUS
DEFINITION
ACCESSION

AX194432 Sequence 32 AX194432 AX194432.1

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from GI:15385088

Patent

20 bp WO0151500

DNA

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PAT

28-AUG-2001

ALIGNMENTS

score greater than or equal to the score of the result being and is derived by analysis of the total score distribution. printed,

Result No. Score Query Match 100 100 100 95 100 000 100 Length B AX352237 AX352225 AX352230 AX194432 AX194434 AX194438 AX194443 AX194472 AX352198 AX352198 AX352242 AX352242 AX352382 AX465382 AX465384 AX465387 AX352167 AX194453 AX194473 AX465403 AX465423 AX465423 AX352207 븅 AX352253 SUMMARIES AX194432 AX194434 AX194472 AX194472 AX1952242 AX465382 AX465383 AX465403 AX352237 AX352238 AX465403 AX352237 AX352237 AX352237 AX352237 AX352237 AX352238 AX352238 AX352238 Description AX352226 Sequence Sequence

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                                                                Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynucleotide and its use to induce an
Patent: WO 0151500-A 37 19-JUL-2001;
Secretary of the Department of Health and Huma
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Wond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Patent: WO 0211761-A 50 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE
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                                                                         Mond, J.J., Prince, G. and Klinman, D.M. Vaccine against RSV Patent: W0 0211761-A 61 14-FEB-2002, HENRY M. JACKSON FOUNDATION FOR THE A
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Search completed: January 20, 2004, 20:43:21 Job time: 708.059 secs
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Vaccine against RSV
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ALIGNMENTS

RESULT 1 AAS09582 Immunoreactive CpG sequence-containing oligonucleotide #32. 26-SEP-2001 (first entry) AAS09582 standard; DNA; 20 BP

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urcicaria, hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Ebola; 88.

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Result

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Description

SUMMARIES

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Immunoreactive Cpg
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Immunoreactive Cpg
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Immunogenic Cpg ol

WO200151500-A1

19-JUL-2001.

12-JAN-2001; 2001WO-US01122.

14-JAN-2000; 2000US-0176115

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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RESULT 2
AAS09584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC sequences is different from another of the multiple CpG sequences. CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving mon-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC cancer, e.g. sutoimmune disorder or an immune system deficiency, infection CC or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or CC caryza, hay fever, bronchial asthma, urticaria (hives), food allergics and other atopic conditions, for improving the efficacy of vaccines CC against hepatitis A, B and C, human immunodeficiency virus (HIV) and CC erythematosus and autoimmune diseases such as rheumatoid arthritis and CC cuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and CC symptoms resulting from exposure of bio-warfare agent, including Ebola, including Ebola, including Ebola, including Ebola, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 20
                                                                                                                                                                        CpG sequence; immune response; non-B cell activation; interferon gar IFN-gamma; humoral; antibody production; interleukin-6 production; IFN-gamma; humoral; asthma; cancer, autoimmune disorder; infection therapeutic; allergy; asthma; cancer, autoimmune disorder; infection bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition, hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     symptoms resulting from exposure to multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and
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                19-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                     WO200151500-A1
                                                                                                                                         lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                    Immunoreactive CpG
                                                                                                                                                                                                                                                                                                                                       26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                          AAS09584;
                                                                                                                                                                                                                                                                                                                                                                                                          AAS09584 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleotides comprising
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                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                        Anthrax;
                                                                                                                                                                                                                                                                                                  sequence-containing oligonucleotide
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Pred. No. 0.075;
Mismatches
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                                                                                                                                                                                              condition;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                 CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
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                                   Leishmania;
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                                                                                                                                                                                                                                                       26-SEP-2001
                                                                                                                                                                                                                                                                                           AAS09587;
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                                   Ebola; Anthrax;
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                                     Listeria; ss.
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Pred. No.
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bio-warfare agents, comprise
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RESULT 4
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Best Local (
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CpG sequence; immune response; non-B cell activation; interferon gamu IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection bio-warfare; vaccine; antisense therapy; eczema; allergic rhintis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
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                                                                                                                                                                                                                                           Immunoreactive CpG sequence-containing oligonucleotide #38.
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                                                                                                          infection;
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                                                                                                                                                                       gamma;
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26-SEP-2001

(first entry

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

AAS09593 RESULT

AAS09593 standard;

DNA;

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                                                                                                                                                                                               ARS09551-ARS09662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for C treating, preventing or ameliorating an allergic reaction, e.g. asthma, CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy virus (HIV) and CC malaria, for treating immune system deficiencies, e.g. lupus capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune diseases such as rheumatoid arthritis and comprised immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, including Ebola, including Ebola, including Ebola,
                                                                          Matches
                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oligodeoxymucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
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                                                                                                                                                Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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                                                                          20;
                                                                                           Similarity
                                   GGTGCATCGATGCAGGGGGG 20
GGTGCATCGATGCAGGGGGG 20
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                                                                                          100.0%;
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                                                                                          Score 20;
Pred. No. 0
                                                                            Mismatches
                                                                                          0.075;
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                                                                          Indels
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26-SEP-2001 (first entry)

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RESULT 6
AAS09622
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CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving an immune response, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cell activation, interferon cc treating, preventing or ameliorating an allergic reaction, e.g. asthma, cc cancer, e.g. solid tumour cancer, a disease associated with the immune csystem e.g. autolammune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The custom and itsense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of avaccines and other atopic conditions, for improving the efficacy virus (HIV) and capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and crythematosus and autoimmune system deficiencies, e.g. lupus tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and constrained in the conditions of the condition
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AAS09622;
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                                                                                AAS09622 standard;
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RESULT 7

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                                                                                                 Matches
                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
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                                                                                                                                                                                             Sequence 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multiple CpG sequences
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s resulting from exposure
                                                                                                                        Similarity
                                                                                                                                                                                                                                                and Listeria.
                                                GGTGCATCGATGCAGGGGG
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                                                                                                                                                                                             BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                              Conservative
                                                                                                                        100.0%;
                                                                                                 0
                                                                                                                     Score 20;
Pred. No.
20
                                                                                                   Mismatches
                                                                                                                             0.075;
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The invention relates to novel immunogenic CpG oligodeoxynucleotides C (AAC80581-C80723). The oligonucleotide are at least 10 bases long C and comprise one of the generic sequences 5'-NNNT-CpG-NNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make CC them more resistant to degradation. The invention also relates to an CC oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides CC in the sequence either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence of the sequence 5'-NNVT-CpG-WNNN-3' being able to induce a cell-mediated response, and those CC in the sequence 5'-NNVT-CpG-WNNN-3' being able to induce a humoral CC (acts on antigen-presenting cells (e.g., macrophages and dendritic CC cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T-or B-cells. The induction of an immune response is CC useful that stering, preventing or ameliorating an allergic reaction CC conjuncteotide is administered either alone or in combination with an CC anti-allergenic agent or anti-infectious agent. The allergic conditions
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                                                                                anti-allergenic agent or anti-infectious agent. The allergic cond: which may be treated include eczema, allergic rhinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel oligonucleotides uallergies, cancer, and a symptoms resulting from
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                     schistosomiasis. Immune response induction may also be used treatment of an autoimmune disorder (e.g., lupus erythemato
                                                            protozoal infections such as tuberculosis,
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VERTHELYI D.
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    eclerosis)
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                   lupus erythematosus
                                                                 AIDS, leishmania and
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         The invention relates to novel immunogenic CpG oligodeoxynucleotides (AACG0581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural killer cell; NK cell activation; ecll-mediated immune response; n-cell response induction; B-cell response antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa. parastitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiantrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                             Claim
                                                                                                                                        symptoms
                                                                                                                                          Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
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(ISHI/)
(VERT/)
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RESULT 9
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Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                 parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antianthritic; antiasthmatic; dermatological; phosphorothioate; ss.
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ilarity 100.0%;
Conservative (
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1 GGTGCATCGATGCAGGGGGG 20

Matches Query Match

Local 20;

Similarity

100.0%; Score 20; DB 22 100.0%; Pred. No. 0.075;

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Sequence 20 BP; 3 A;

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SHARARU

14-FEB-2001 AAC80618;

(first entry)

RESULT 10

AAC80618 standard; DNA;

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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cactivation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cc (preferably asthma), or an infection, where an immune response is coligonucleotide is administered either alone or in combination with an cc unti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, cc urticaria, food allergies and other atopic conditions, and the crimetic protozoal infections such as tuberculosis, Albertians, and the creatment of an autoimmune disorder (e.g., lupus erythematosus, response induction may also be used in the immune system deficiency, and symptoms resulting from exposure to an immune system deficiency, and symptoms resulting from exposure to an combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in consolid tumour cancer. The induction of an immune response is used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNN-3' or C5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the Coligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an Coligonucleotide delivery complex comprising an oligonucleotide of the Cinvention and a targetting agent, and a pharmaceutical composition C comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral C (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates on antipologonucleotide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates on antipologonucleotide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates on antipologonucleotide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates on antipologonucleotide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates on antipologonucleotide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral creates of a marconharae and dendritic
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                                                                              solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide.
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mmunogenic CpG oligodeoxynucleotide, SEQ ID NO:38
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CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheunatoid arthritis; multiple solerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.

synthetic

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. (VERT/) VERTHELYI D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -

Claim 4; Page 30; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNA-3' or or of the generic sequences 5'-NNNT-CpG-WNNA-3' or or oligonucleotide optionally have phosphorothioate linkages which make coligonucleotide oblivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral cell-mediated (T-cell) response, and those comprising the oligonucleotide stream antigen-presenting cells (e.g., macrophages and dendritic cells on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation the oligonucleotide cells on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural composes in the cell-mediated or humoral response can then occur by cativation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG conjuncleotide is administered either alone or in combination with an activation of allergies and other atopic conditions, and the unticaria, food allergies and other atopic conditions, and the curval collections which may be treated include viral, bacterial, hugal and comprocessed to a cell-mediation with an anticaria, food allergies and other atopic conditions, and the treatment of an autoimmune disorder (e.g., lupus erythematosus, resulting from exposure to an immune system deficiency, and symptoms resulting from exposure to an immune subsolute to an immune response is used in the coligonucleotid

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The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long cand comprise one of the generic sequences 5'-NNVT-CpG-WNNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothicate linkages which make CC oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNN-3' being able to induce a humoral cof the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNOT-CpG-WNNN-3' being able to induce a humo
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                            Claim 4; Page 30; 46pp; English
                                                                                                                                                                                                                                                                                                                                                                                                             Novel oligonucleotides useful for the prevention and treatment o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa parasitic; tuberculosis; AIDS; autoimmune disease; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CpG 011godeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-006880/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Klinman D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
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ISHII K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG oligodeoxynucleotide, SEQ ID NO:43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dermatological;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CC cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immunogenic CpG cligonuclectide is administered either alone or in combination with an CC anti-allergenic agent or anti-infectious agent. The allergic conditions CC which may be treated include eczema, allergic rhinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the cC infections which may be treated include viral, bacterial, fungal and CC except the conditions such as tuberculosis, AIDS, leishmania and CC except the conditions are such as tuberculosis, and the cC treatment of an autoimmune disorder (e.g., lugus erythematosus, conditions are such as tuberculosis, and the conditions which and multiple sclerosis), a disease associated with CC immune system deficiency, and symptoms resulting from exposure to an CC antisense to combination with an anti-cancer agent, is useful for treating CC antisense therapy and to improve the efficacy of a vaccine. The CC antisense therapy and to improve the efficacy of a vaccine. The CC producing activated lymphocytes which are then administered to the host. CC for the present sequence represents an immunogenic CpG oligonexynucleotide is preferably administered to CpG oligonexynucleotide of the invention.
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Best Local S
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                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa: parastic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiamicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence of the invention.
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                 Klinman
                                                                       (KLIN/)
(ISHI/)
                                                                                                                                                                  12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72.
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                                                      (VERT/)
                                                                                                                             12-APR-1999;
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                                                    ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
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                 Ishii K,
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Pred. No. 0.075;
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RESULT 13
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AC ABK46
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DT 05-JI
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Immur
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Immet
KW unmet
KW viral
KW viral
KW viral
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cc response. It is thought that after administration, the oligonucleotide cats on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cactivation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction cell (preferably asthma), or an infection, where an immune presponse is conditions conditions and the cell-mediate reaction where an immune presponse is which may be treated include eczema, allergic rhinitis, hayfever, cell urticaria, food allergies and other atopic conditions, and the protozoal infections such as tuberculosis, Albs, leishmania and cell for treatment of an autoinmune disorder (e.g., lupus crythematosus, cell remune system deficiency, and symptoms resulting from exposure to an cell for an autoinfaction with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in celligonucleotide is preferably administered to lymphocytes ex vivo, conducing activated lymphocytes which mare then administered to the host. The producing activated lymphocytes which are then administered to the host.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or CFG-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an CC oligonucleotide delivery complex comprising an oligonucleotide of the CC onlyonucleotide delivery complex comprising an oligonucleotide of the CC comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral CC are able to induce either a cell-mediated (T-cell) response, and those CF-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       present sequence represents an immunogenic CpG the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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Pred. No.
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unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncyrial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.

05-JUN-2002

(first entry)

ABK46460

Immunostimulatory

unmethylated

CpG oligodideoxynucleotide

#50.

ABK46460 standard;

DNA;

20

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RESULT 14
ABK46462
ID ABK46
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ABK467
AC ABK46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the
                                                   10-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                                                                                                       09-AUG-2001;
                                                                                                                                                                                                 14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                         unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABK46462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              creation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Page 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-227118/28.
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                                                                                                                                                                                                                                                    WO200211761-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK46462 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
(JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
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of the vacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGCATCGATGCAGGGGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 20; DB 24;
Larity 100.0%; Pred. No. 0.075;
Conservative 0; Mismatches 0;
                                                      2000US-224011P.
2000US-229307P.
                                                                                                                                          2001WO-US41633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
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by guanine
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ABK46465
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  guanine linked by phosphate bond) oligodideoxynucleotides (ODNs). The vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides
                                                    Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                           Mond
                                                                                                                                                                                                                                                                                                                                                                            Paramyxoviridae; F protein; viral bronchiolitis; pneumon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; Page 8; 30pp; English.
                                                                                                                                                                                                 10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                                                                                                                                                                                                           09-AUG-2001; 2001WO-US41633
                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                          bronchopulmonary
                                                                                                                                                                                                                                                                                                                                                                         unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mond JJ,
                         Claim 4; Page 8; 30pp; English
                                                                                                                WPI; 2002-227118/28.
                                                                                                                                                                      (JACK-)
                                                                                                                                                                                                                                                                         14-FEB-2002
                                                                                                                                                                                                                                                                                                     WO200211761-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunostimulatory unmethylated CpG oligodideoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK46465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABK46465 standard; DNA;
                                                                                                                                         'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GGTGCATCGATGCAGGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                       JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         represents an oligodideoxymucleotide that can be used in the of the vaccine.
                                                                                                                                         Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                      FOUND ADVANCEMENT MILITARY
                                                                                                                                                                                                                                                                                                                                                          dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 20; 100.0%; Pred. No.
                                                                                                                                           Klinman
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 24;
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                                                                   virus, has
by guanine
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The invention describes a vaccine comprising one or more epitopes of a

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Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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밁 GGTGCATCGATGCAGGGGGG 20

1 GGTGCATCGATGCAGGGGGG 20

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Search completed: January 20, 2004, 18:51:34 Job time: 123.235 secs

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Minimum DB seq length: 0
Maximum DB seq length: 500
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OLIGO_NUC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA: *
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                                                                                                                                                                                                                                                                                                                                                                                                                                            cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
n2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
gn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
gn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/US10B_PUB.seq:*
gn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
gn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
gn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
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_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
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                                                                                                                                                                                                                                                                                                               NEW PUB.seq:*
                                                                                                                                                                                                                                                                  NEW_PUB.seq:*
PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

No.	Score	Query Match Length DB	ength	DΒ	ID	Description	
1	20	100.0	20	13	US-10-194-035-32	Sequence 32,	App1
2	20	100.0	20	13	US-10-194-035-34	Sequence 34,	Appl
ω	20	100.0	20	13	US-10-194-035-37	Sequence 37,	Appl
44	20	100.0	20	13	US-10-194-035-38	Sequence 38,	Appl
ψ,	20	100.0	20	13	US-10-194-035-43	Sequence 43,	Appl
6	20	100.0	20	13	US-10-194-035-72	Sequence 72,	Appl
7	20	100.0	20	15	US-10-068-160-1	Sequence 1,	Appli
œ	20	100.0	20	15	US-10-068-160-54	Sequence 54,	Appl
9	19	95.0	19	13	US-10-194-035-53	Sequence 53,	Appl
10	19	95.0	19	13	US-10-194-035-73	Sequence 73,	Appl
11	18	90.0	18	15	US-10-068-160-12	Sequence 12,	App1
12	18	90.0	20	15	US-10-068-160-38	Sequence 38,	Appl
13	17	85.0	17	13	US-10-194-035-27	Sequence 27,	Appl
14	16	80.0	16	13	US-10-194-035-71	Sequence 71,	Appl
15	15	75.0	20	15	US-10-068-160-65	Seguence 65,	App1

RESULT 2

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4 4 5 4	43	42	41	40	39	38	37	36	35	34	IJ IJ	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	F
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11	; <u>;</u>	H	11	11	11	11	11	11	11	H	11	11	11	11	10	10	10	10	15	15	15	15	15	13	13	13	13	b
US-09-978-1878-294 US-09-978-643A-294	US-09-978-757A-294		US-09-978-193A-294	-09-978-423A-	US-09-918-585A-294	US-09-978-824-294	US-09-981-915A-294	US-09-999-833A-294	ø	-09	-09-978		-09	-09-978	-09	US-09-978-192A-294	-09-978	-09-978	-10-068	-10-06E	0-068-160-3	US-10-068-160-26	390-0	US-10-194-035-102	US-10-194-035-82	US-10-194-035-81	1	- TO-000
Sequence 294,			Sequence 294,		Ф	æ	æ	æ		æ	Φ	Ф		Φ	æ	Sequence 294,		294,	49,	44,	38,	26	e 7,	e 10:	82		•	٦
App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App1	App1	Appl	Appl	ppli	2, App	App1	App1	Appl	1001

ALIGNMENTS

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US-10-194-035-32
                                                                                                                                                      ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-32
                                                                                                                                                                                         SEQ ID NO 32
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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Best Local (
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APPLICANT:
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILLING DATE: 2002-07-12
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1 GGTGCATCGATGCAGGGGGG 20
                            1 GGTGCATCGATGCAGGGGGG 20
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                                                                                               Similarity
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100.0%; Pred. No. 0.0
tive 0; Mismatches
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0.036;
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-10-194-035-37
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Publication No. US20030144229A1
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Best Local Similarity
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SEQ ID NO 37
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-63317
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-07-12
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TYPE: DNA
ORGANISM: Artificial Sequence
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LENGTH: 20
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INVENTION: OLIGODEOXYNUCLEOTIDE AND
GGTGCATCGATGCAGGGGGG 20
                                    GGTGCATCGATGCAGGGGGG 20
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Pred. No. 0.036;
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Pred. No. 0.036;
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TITLE OF INVENTION: OLIGODEOXXNUCLECTIDE AND IT
FILE REFERENCE: 4239-63117
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION UNMBER: PC7/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION UNMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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LENGTH: 20
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Best Local &
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
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Best Local
                                                                           Matches
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver.
EQ ID NO 43
LENGTH: 20
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NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                        TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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INVENTION: OLIGODEOXYNUCLEOTIDE AND
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Pred. No. 0.036;
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PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
                                                                                 Matches
                                                                                                  Query Match
Best Local Similarity
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Best Local Similarity
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SEQ ID NO 72
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Publication No. US20030144229A1
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN
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NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
FEATURE:
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GGTGCATCGATGCAGGGGGG 20
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100.0%; Pred. No. 0.036;
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, ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Oligonucleotide
US-10-068-160-54
                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-53
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                                                                                                                                                                                                                                     SEQ ID NO 53
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Best Local (
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SEQ ID NO 54
LENGTH: 20
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                                                                                              Query Match
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                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                                                                                                                             TYPE: DNA ORGANISM: Artificial Sequence
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GGTGCATCGATGCAGGGGG 19
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                                                                Conservative
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Pred. No.
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AND HUMAN SERVICES
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US-10-068-160-12
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RESULT 12
US-10-068-160-38
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Publication No.
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SEQ ID NO 73
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SEQ ID NO 12
LENGTH: 18
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Publication No. US20030144229A1
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PILING DATE: 2001-01-14
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE
FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/128,898 PRIOR FILING DATE: 1999-04-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
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KLINMAN, De
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                                                                                                                                ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-27
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-38
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SEQ ID NO 38
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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SEQ ID NO 27
LENGTH: 17
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PRIOR FILING DATE: 199-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: DATE: 199-04-12
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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mes 17; Conserv
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100.0%; Pr
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Pred. No.
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RESULT 14 US-10-194-035-71 ; Sequence 71, Ap

Application US/10194035

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FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 65
LENGTH: 20
ORGANISM: Artificial Sequence
FRATURE:
                                                                                                                                                                         Query Match
Best Local Similarity
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 71
LENGTH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
Search completed: January 20, 2004, 20:51:01 Job time: 133.941 secs
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                                                                                                                                                                                                                                                                                                    ; FEATURE:
; OTHER INFORMATION: Oligonucleotide
US-10-068-160-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 80.0%; Score 16; DB 13; Length 16; Best Local Similarity 100.0%; Pred. No. 7.4; Matches 16; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER: COLUMN DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
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                                                                                                       TITLE
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Unpublished
Contact: Tadasu Shin-i
Center For Genetic Resource Information
National Institute of Genetics
1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6855
Fax: 81-559-61-6855
                                                                                                                                                                                                                                BJ193666 177 bp mRNA linear EST 24-BJ193666 normalized full length cDNA library, chloronemata, caulonemata and rhizoid-like protonemata Physcomitrella pat subsp. patens cDNA clone pphn19j13 5', mRNA sequence.
BJ193666 TT.
                                                                                                                          Physcomitrella patens subsp. patens
Physcomitrella patens subsp. patens
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Bryophyta;
Bryopsida; Funariidae; Funariales; Funariaceae; Physcomitrella.
1 (bases 1 to 177)
Fujita,T., Shin-i,T., Seki,M., Kamiya,A., Uchiyama,I., Nishiyama, Carninci,P., Hayashizaki,Y., Shinozaki,K., Kohara,Y. and Hasel
                                                                                                      Comparison of the moss Physcomitrella patens genome with flowering
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  Email: tshini@genes.nig.ac.jp
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CA654361 wrein.pk1
BW238122 BW238122
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BG815202 dac02d03.
AA223768 zr10a06.r
AI036275 vl183f10.r
AQ214130 HS 2187 B
BF29321 WHE2155 C
AQ927254 RPC1 23-2
CA706144 wdk1c.pk0
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BE026564 db28c05.x
BW220988 BW220988
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CC354887 PUHNQC4TB
W73999 zd81C01.r1
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BQ380106 RC1-ŪT001
AV993468 AV993468 BH220641 1006095A0
BX483168 Homo sapi
BM85929 K-EST0141
BW057424 BW097424
AW415097 49143 MAR
BH019162 L242k-d-H
AA066330 mm14e06.T
CB391692 OSTF156H5
AA9304446 V859906.T
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AA749807 ISAS0074
CB038739 Tc ad2 49
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AA853766 NHTBCae08
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AUTHORS
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Beijing Agro-biotechnology Research Center
Benjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
Tel: 8610 5150 3831
Fax: 8610 5150 3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      i (bases 1 to 210)
Jiangy.Q. and Ma,R.C.
Generation and Analysis of 814 Expressed Sequence Tags from Almond
(Prunus dulcis) Pistils
Unpublished (2002)
Contact: Jiang YQ, Ma RC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
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EST.
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BQ703645
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Insert Length: 210 Std Error: 0.
Seq_primer: M13/pUC reverse primer
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/sub_specier
/dh
/tissue type="pistils"
/clone_lib="almond cDNA library"
/clone_lib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site 1: Sal I; Site 2:
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit(CAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="mixture of chloronemata, caulonemata and rhizoid-like protonemata"
/clone_lib="normalized full length cDNA library, chloronemata, caulonemata and rhizoid-like protonemata"
31 c 58 g 57 t
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100.0%; Pr
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Prunus dulcis cDNA 5', mRNA sequence.
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119
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Jiang, Y.O. and Ma.R.C.
Generation and Analysis of Expressed Sequence Tags from Almond
(Prunus dulcis) Pistils
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Jiang YQ, Ma RC
Lab of Plant Functional Genomics
Beijing Agro-biotechnology Research Center
Banjing Cun, No.301, Haidian Dis., Beijing
Tel: 8610 5150 3831
Fax: 8610 5150 3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CA854145 211 bp
EST1175 almond cDNA library Prunus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seq primer: M13/pUC reverse primer POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: rcmal@yahoo.com
Insert Length: 211 St
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                                                                                                  Similarity
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                         TGCATCGATGCAGGG 17
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                                                                                                                                                                        /tissue type="pistils"
/clone Tib="almond cDNA library"
/clone Tib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site 1: Sal I; Site 2:
/note="Organ: flower; Vector: pZL1; Site 1: Sal I; Site 2:
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit(CAT
synthesized using a lambda-zipLox cDNA synthesis kit(CAT
No.19643-014, Invitrogen, USA). The phage library was
converted through mass excision to a plasmid library in
the vector pZL1. The plasmid library was plated on 15-cm
LB agar plates with 100ug/mL ampicillin. Individual clones
were picked at random and propagated. The 5'ends of the
cDNA clones were sequenced on ABI Prism377 DNA sequencer."
81 a 29 c 39 g 62 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Prunus dulcis"
/mol_type="mRNA"
/db_xref="taxon:3755"
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100.0%; Pr
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Pred. No.
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6.5e+02;
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6.5e+02;
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dulcis cDNA 5',
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sequence.
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RESULT 5
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CB966250
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Best Local :
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                     TITLE
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                 GSS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: arjulsl@uohyd.ernet.in:
Insert Length: 374 Std Error: 0.00
Seq primer: CGCCAGGGGTTTCCCAGTCACGAC.
Location/Qualifiers
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CB966250
                                                                                                                                                                                                                                                                                  BH861949 113 bp DNA linea SALK 088338 Arabidopsis thaliana TDNA insertion thaliana genomic clone SALK_088338, genomic surv
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EST.
A Sequence-Indexed Library of Arabidopsis Genome
                                      Alonso,J.M., Leisse,T.J., Barajas,P.,,C., Jeske,A., Karnes,M., Kim,C.J., P., Zimmerman,J. and Ecker,J.R.
                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                     Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
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                                                                                                                                                                                                                                                                          BH861949
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Department of Plant Sciences, School of Life Sciences
University of Hyderabad
P.O. Central University, Hyderabad-500 046, A.P, India
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Markandeya,G., Ravindra Babu,P., Venkat Reddy,B., Nagabhushana,I.,
Chandra Sekhar,A., Bennetzen,J.L., Ramakrishna,W. and Reddy,A.R.
ESTs from a normalized cDNA library of drought stressed rice
seedlings (Oryza sativa L.cv Nagina 22)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="Entire leaf tissue"
/dev stage="35 day-old seedlings"
/clome_lib="Drought stress (leaf)"
/note="Organ: Leaf; Vector: T73Pac; ESTs from normalized
leaf cDNA Library from drought stressed seedlings "
113 c 82 g 73 t
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/clone="NL34_G07"
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|mol_type="mRNA"
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                     Insertion Mutations in the
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6.4e+02;
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Prednis, L.,
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RESULT 6
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                                                                                                                                                                                Contact: Simpson A.J.G.
Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Ludwig Tathania Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence.
BQ380106
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                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 207)
Dias Neto, B., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Nagai, M.A., da Silva, W. Jr., Matsukuma, A., Baia, G.S., Simpson, D.H., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BQ380106 207 bp
RC1-UT0012-020800-011-a02_1 UT0012
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Contact: Joseph R. Ecker
                                                                                                                                                                                                                                                                                                                                                                                       Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?t1=RCl&t2=RC1-UT0012-020800-011-a02_1&t3=2000-08-02&t4=1)
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                                                                                              Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
                                                                                                                                             Tel: +55-11-2704922
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/clone="SALK_088338"
/clone lib="Arabidopsis thaliana TDNA insertion lines"
/clone="PCR was performed on Arabidopsis thaliana lines
/note="PCR was performed on Arabidopsis thaliana lines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Arabidopsis thaliana"
/mol_type="genomic DNA"
/strain="Columbia 0"
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Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
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                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 81-75-753-4081
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Nori Satoh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
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/note="Organ: uterus tumor; Vector: pucl8; Site_1: SmaI;
/note="Gorgan: uterus tumor; Vector: pucl8; Site_1: SmaI;
Site_2: SmaI; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
a 45 c 54 g 46 t
                                                                                                                                                                                                                                        /tissue_type="whole animal"
/dev_stage="larva"
                                                                                                                                                                                                                                                                                         /organism="Ciona intestinalis"
/mol_type="mRNA"
/db_xref="taxon:7719"
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_xref="taxon:9606"
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RESULT 9
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              EST; expressed sequence tag
                                             Homo sapiens mRNA; EST DKFZp686B17235_rl (from clone DKFZp686B17235)
                                                                                   09-MAY-2003
09-MAY-2003
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1006096A08.x1 1006 - RescueMu Grid G Zea mays genomic, genomic
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Plate: 1006096 row: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 650 723 2227
Fax: 650 725 8221
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
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/clone_lib="1006 - RescueMu Grid G"
/clone_rorgan: leaf; Vector: RescueMu (engineered from /note="organ: leaf; Vector: RescueMu (engineered from /note="organ: leaf; Vector: RescueMu (engineered from pBlueScript backbone); Site_1: BamHI; Site_2: BglII; RescueMu is a 4.9 kb, modified maize Mu transposon designed to allow plasmid rescue from total genomic DNA. Mu elements insert preferentially into transcription units. For more information on RescueMu, go to the web site 'www.zmdb.iastate.edu' and follow the links for 'RescueMu.' Grid G was grown at Stanford in 2000. DNA was extracted from leaf punches, double digested using BamHI and BglII, and ligated to form circular plasmids. DH10B and BglII, arransformed and then screened on LB plates with
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/dev_stage="adult"
/lab_host="DH10B"
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/cultivar="mixed background W23/A188/B73"
/db_xref="taxon:4577"
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bloecker
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                                                                                                                                                                                                                                                                                                                                                                                                         214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from S. Wiemann, Molecular Genome Analysis, German Cancer
rch Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Berlin-Charlottenburg,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lone (DKFZp686B17235) is available at t
contact the RZPD: Ressourcenzentrum, F
Berlin-Charlottenburg, GERWANY; Email:
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                                                      Genome Research Center
Genome Research Institute of Bioscience & Biotechnology
Korea Research Institute of Bioscience & Biotechnology
For Boarn-dong Yuseong-gu, Daejeon 305-333, South Korea
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                                                                                                                                                                            Kim, N.S.,
                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                             mRNA sequence.
BM856929
                                                                                                                                                                                                                                                                                                                     K-EST0141064 S21SNU520 Homo sapiens cDNA clone S21SNU520-76-D03 5',
                                                                                                                                                                                                                                                                                                                                     BM856929
                                                                                                             Contact: Kim YS
                                                                                                                          Unpublished
                                                                                                                                       21C Frontier Korean
                                                                                                                                                                 Oh, K.J., Cheong, J.E.,
                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                               BM856929.1 GI:19213328
            Email: yongsung@mail.kribb.re.kr
Plate: 76 row: D column: 03
                                           Fax: +82-42-860-4409
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/organism="Homo sapiens"
/clone="DKFZp686B17235"
/clone_lib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH10B; sites SfiIA + SfiIB"
/dev_stage="adult"
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sequence
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Pred. No.
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                                                                                                                                                                 Sohn, H.Y.,
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                                                                                                                                                                                                                                                                                                                                     292
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                                                                                                                                                                                                                                                                                                                                    g
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clone@rzpd.de
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AUTHORS
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BW097424 Nori Satoh unpublished cDNA
intestinalis cDNA clone rcitb058009 3
BW097424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
                                                                                                                                                                                                           Sakyo-ku, Kyoto, Kyoto 606-8502,
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                                                                                                              Ciona intestinalis
                                                                                                                                                                                                                                                                                           Contact: Nori
Department of
                                                                                                                                                                                                                                                                                                                                                 Satou,Y., Shin-i,T., Kohara,Y. and Satoh,N. Expressed genes in Ciona intestinalis (2002c)
                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Urochordata; Phlebobranchia; Cionidae; Ciona.
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                                                                                                                                                                                         satoh@ascidian.zool.kyoto-u.ac.jp
                                                                          /organism="Ciona intes
/mol_type="mRNA"
/db_xref="taxon:7719"
/clone="rcitb058009"
/tissue_type="whole animal"
/dev_stage="tailbud embryo"
/clone_lib="Nori Satoh unpub
embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="Stomach"
/cell_type="Floating_aggregates"
/cell_line="SNU-520"
/clone_lib="S21SNU520"
/clone_lib="S21SNU520"
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100:0%; Pr
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2.1e+03;
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RESULT 13
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BH019162 352 bp DNA linear GSS 25-MAY-2 L242k.d_HygT3.1 Leishmania major Friedlin Cosmid Genomic Library
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49143 MARC 1PIG Sus scrofa
AW415097 GI:6942979
EST.
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BACKWARD: GTTTTCCAGTCAGACG
BALEWARD: GTTTTCCAGTCGACACG
Plate: 23 row: N column: 24
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -min
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly Mamm. Genome 13 (8), 475-478 (2002)
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Vallet,J., Wise,T., Rohrer,G.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 402 762 4366
Fax: 402 762 4390
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                                                                                                                                                                                                                   /organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
/tisue_type="pooled"
/lab host="DHIOB"
/clone_lib="MARC_IPIG"
/note="Wector: pCMV_SPORT6; Site_1: NotI; Site_2: SalI;
Library made from pooled tissue from day 11, 13, 15, 20, and 30 embryos."
and 30 embryos."

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Sultana,R.,
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                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 360)
Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T. Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., More, B., Theistan B. William T. Theistan B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mm14e06.rl Stratagene mouse diaphragm (#93 clone IMAGE:521506 5' similar to gb:X03208
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Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leishmania major genomic clone L242k,
BH019162
BH019162.1 GI:14197868
                                                                                                                                                                                                                                                                                                                          Mus musculus
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Seattle Biomedical Research Institute
4 Nickerson Street, Seatttle, WA 98109-1651,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Myler,P.J., Vogt,C., Cawthra,J., Klacking,M., Marty,A., Mack,J., Munden,H., Nguyen,D., Robertson,L., Sisk,E., Fazelinia,G., Aggarwal,G., Nelson,S., Seyler,A., Worthey,E. and Stuart,K.
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Seq primer: HygT3
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Unpublished
                              Waterston,R.
The WashU-HHMI Mouse EST Project
                                                                                          Theising, B., Wylie, T.,
                                                                                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mol_type="genomic DNA"
/strain="Friedlin"
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; Pred. No. 2.1e+03;
0; Mismatches 0;
                                                                                                Lennon, G.,
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Dana Farber Cancer Institute

Dana Farber Cancer Institute

1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA

Tel: 617 632 5180

Fax: 617 632 5739

Email: Marc Vidal@dfci.harvard.edu

Sequence tag of Gateway entry clones. The primers used were designed on the predicted protein encoding ORF. C. elegans ORFeome cloning project : Contact david_hill@dfci.harvard.edu or
                                                                                                                                                                                                                                                                                            i (bases 1 to 363)

Reboul, J., Vaglio, P., Rual, J.F., Lamesch, P., Martinez, M., Armstrong, C.M., Li, S., Jacotot, L., Bertin, N., Janky, R., Moore, T., Hudson, J.R., Hartley, J.L., Brasch, M.A., Vandenhaute, J., Boulton, S., Endress, G.A., Jenna, S., Chevet, E., Papasotiropoulos, V., Tolias, P.P., Ptacek, J., Snyder, M., Huang, R., Chance, M.R., Lee, H., Doucette-Stamm, L., Hill, D.E. and Vidal, M.

C. elegans ORFeome version 1.1: experimental verification of the genome annotation and resource for proteome-scale protein
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Fax: 314 286 1810
Email: mouseest@wattson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                Nat. Genet., (20
Contact: Vidal M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caenorhabditis elegans
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea
; Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CB391692 363 bp mRNA linear OSTF116H5_1 AD-wrmcDNA Caenorhabditis elegans cDNA, CB391692 GB391692.1 GI:30733402
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Location/Qualifiers
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WashU-HHM Mouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                               expression
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/note="Organ: diaphragm; Vector: pBluescript SK.; Site 1:
EcoRI, Site 2: Kho!; Cloned uniditrectionally from mRNA
prepared from diaphragm muscle. Primer: Oligo dT. Average
insert size: 1.5 kb. Uni-ZAP XR Vector; ~5' adaptor
sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5' GAATTTTTTTTTTTTTTT 3'"
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/dev_stage="adult"
/lab_host="SOLR (kanamycin resistant)"
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'db_xref="taxon:10090"
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175 ATCGATGCAGGGGG 188
                                                                  14;
                                6 ATCGATGCAGGGG 19
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RNA isolated from both hermaphrodite and male N2 worms of
all larval stages, embryos, adults and dauers and the
subsequent generation of cDNAs by poly(A) priming. The
cDNAs were cloned into pPC86"
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2888711 seqs, 20454813386 residues

Searched:

Sequence: Scoring table:

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Database :

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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

January 20, 2004, 16:34:44; Search time 706.471 Seconds (without alignments) 1158.141 Million cell updates/sec

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Patent: WO 0151500-A 37 19-JUL-2001;
Secretary of the Department of Health and Human Location/Qualifiers
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Oligodeoxynuclectide and its use to induce an
Patent: WO 0151500-A 43 19-JUL-2001;
Secretary of the Department of Health and Huma
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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/note="Synthetic HDR"
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/db_xref="taxon:32630"
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/note="Synthetic HDR"
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Mond, J.J., Flora, M. and Klinman, D.M. Immunostimulatory rna/dna hybrid molecules Patent: WO 0193902-A 505 13-DEC-2001; Biosynexus Incorporated (US)
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RESULT 12
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Mond, J.J., Prince, G. and Klinman, D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/note 3 c 11 g 3 t
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/organism="synthetic construct"
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BASE COUNT
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AX465422
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TITLE
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Search completed: January 20, 2004, 17:14:58 Job time: 707.471 secs
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                                                               Mond,J.J., Prince,G. and Klinman,D.M.
vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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/mol type="genomic DNA"
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Post-processing: Minimum Match 0%
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AAC80661	AAC80620	AAS09657	AAS09656	AAS09654	AAS09651	AAS09650	AAS09632	AAS09631	AAS09590	ABK46501	ABK46481	AAC80653	AAC80633	AAS09623	AAS09603	ABL35537	ABL35600	ABL35595	ABL35607	ABL35601	ABL35589	ABL35618	ABL35574	ABL35612	ABL35579	ABL35568	ABK46500	ABK46471	ABK46466	ABK46465	ABK46462	ABK46460	AAC80652	AAC80623	AAC80618	AAC80617
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ALIGNMENTS

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AAS02
XX AAS0
XX AAS0
XX AAS0
XX Immu
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XW IFN
XW IFN
XW ther
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; interleukin-6 production; interapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndr acquired immunodeficiency syndrome; AIDS;

Listeria; ss

Synthetic Leishmania; Ebola; Anthrax;

12-JAN-2001; 2001WO-US01122.

19-JUL-2001. WO200151500-A1

14-JAN-2000; 2000US-0176115

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oligodeoxymucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                         hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          prevent an allergic reaction, car symptoms resulting from exposure multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CpG sequence; immune response; non-B cell activation; interferon gamma; IPN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis;
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CC nucleotides comprising multiple CpG sequences, where one of the CpG comprising multiple CpG sequences, where one of the CpG cpG requences is different from another of the multiple CpG sequences.

CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for cell activating, preventing or ameliorating an allergic reaction, e.g. asthma, cc system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The cluduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune system deficiencies, e.g. lupus infections inflections including Francisella, schistosomiasis, cuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and computeroms resulting from exposure of bio-warfare agent, including Ebola, inclu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar symptoms resulting from exposure to bio-warfare agents, comprise
                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 5; Page 32; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      symptoms
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                                                                                                                 and Listeria.
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CpG sequences
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                                                          BP;
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                                                       3 C;
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                                                       <u>ن</u>
                                                       3 T; 0
                                                            other;
  22;
Length
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문 Ś Query Match Best Local S Matches 20 20; Similarity GGTGCATCGATGCAGGGGG Conservative 100.0%; 0 Score 20; Pred. No. 20 20 Mismatches <u>,</u> Indels 0, Gaps 0

AAS09587 standard; DNA;

20

(first entry)

Immunoreactive CpG sequence-containing oligonucleotide #37

RESULT 3
AAS095A
AAS095A
XX AAS0
XX AAS0
XX Immu
XX Im CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndr

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RESULT 4
AAS095ab
ID AASC
XX AASC
AC AASC
XX
AC AASC
XX
DT 26-5
DT 26-5
DT 26-5
EW
DT Immm
XX
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CC The ODN are useful for inducing an immune response, preferably a cell-comediated immune response, involving non-B cell activation, interferon activation in a control inducing an immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthmac CC cancer, e.g. solid tumour cancer, a disease associated with the immune control induction of immune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines and completitis and conditions, for improving the efficacy of vaccines and interpretations and interpretations and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and control response immunodeficiency syndrome (AIDS), Leishmania and control response immunodeficiency syndrome (AIDS), Leishmania and control response interpretations including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and control response resulting from exposure of bio-warfare agent, including Ebola,
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; henatitis: human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                       CpG sequence; immune response; non-B cell activation; interferon of IFN-gamma; humoral; antibody production; interleukin-6 production; interleukin-6 production; interleukin-6 production; interleukin-6 production; infect; interapeutic; allergy; asthma; cancer; autoimmune disorder; infect; infec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-442129/47
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                                                                                                                                                                                                                                                                                                                                                                                                                           26-SEP-2001
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                                                                                                                                                                                                                                                                                                                           Immunoreactive CpG sequence-containing oligonucleotide #38.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGTGCATCGATGCAGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Á
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                cell activation; interferon gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 22;
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                                                                                                                                     infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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SXEXEXEX

26-SEP-2001

(first entry)

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

RESULT

AAS09593

AAS09593 standard; DNA;

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                                                                                                                  Query Match
Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                         multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder an symptoms resulting from exposure to bio-warfare agents, comprismultiple CpG sequences
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                                                                                                                                                                                                                                  Sequence 20
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                                                                                                                                                                                                                                                                                                Anthrax and Listeria.
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                                                                                                                  20;
                                                                                                                                              Similarity
                                                          GGTGCATCGATGCAGGGGGG 20
GGTGCATCGATGCAGGGGG
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                                                                                                                  Conservative
                                                                                                                                              100.0%; Score 20; 100.0%; Pred. No.
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20
                                                                                                                     Mismatches
                                                                                                                                                                       DB 22;
                                                                                                                  0
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                                                                                                                     Indels
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RESULT 6
AAS09622
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cc mediated immune response, involving non-B cell activation, interferon
cc gamma (IFN-gamma) production or a humoral immune response involving B
cc cell activation, antibody and interleukin-6 production in a host, for
cc treating, preventing or ameliorating an allergic reaction, e.g. asthma,
cc cancer, e.g. solid tumour cancer, a disease associated with the immune
cc system e.g. autoimmune disorder or an immune system deficiency, infection
cc or a symptom resulting from exposure to bio-warfare agent in a human. The
cu sed in antisense therapy. The ODN are useful for treating, preventing or
cc coryza, hay fever, bronchial asthma, urticaria (hives), food allergies
cc against hepatitis A, B and C, human immunodeficiency virus (HIV) and
cc arythematosus and autoimmune system deficiency virus (HIV) and
cc erythematosus and autoimmune diseases such as rheumatoid arthritis and
cc unlaria, for treating immune system deficience, e.g. lupus
cu tuberculosis, acquired immunodeficiency syndrome (AlDS), Leishmania and
cc Anthrax and Listeria.
                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleotides comprising multiple CpG sequences, where one of the Cr
sequences is different from another of the multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim
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AAS09622 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20
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                                                                                                                                                                                                                            GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 3 A; 3 C;
                                                                                                                                                                                                                                                                                                                           100.0%; Score 20; 100.0%; Pred. No.
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   ВP
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                                                                                               Matches
                                                                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                              Sequence 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multiple CpG sequences
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                                                                                                                           Similarity
                                                                                                                                                                                                                                                 and Listeria.
                                              GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                               Conservative
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                                                                                                                      100.0%;
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                                                                                                                        Score 20;
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acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic roinition, and the infections which may be treated include variations of the profession of the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-MNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonuclectide
schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated
                                                                                                  protozoal infections such as tuberculosis, AIDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 29; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oligonucleotides useful for the prevention and treatment of gies, cancer, and autoimmune disorders and for ameliorating oms resulting from exposure to a bio-warfare agent
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VERTHELYI D.
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ISHII K.
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      associated with
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Best Local S
Matches 20
The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'.NNNT-CpG-WANN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CGG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; waccine; altergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                          Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                              Claim 4; Page
                                                                                                                                                                                                                                                                                                                                                                                          12-APR-2000; 2000WO-US09839.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiasthmatic;
                                                                                                                                                                                                                              WPI; 2001-006880/01.
                                                                                                                                                                                                                                                            Klinman D,
                                                                                                                                                                                                                                                                                                                                                            12-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
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) ISHII K.
) VERTHELYI D.
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20; Conservative
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                                                                                                                              29; 46pp; English
                                                                                                                                                                                                                                                                                                                                                            99US-0128898
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                                                                                                                                                                                                                                                             Verthelyi D;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ID NO:34.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protozoal;
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RESULT 9
AAC80617
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                    CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; nateral response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                         12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
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99US-0128898
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 20; DE 100.0%; Pred. No. 2; vative 0; Mismatches
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RESULT 10
AAC80618
ID AAC80
XX
AC AAC80
XX
AC AAC80
XX
DT 14-FE

AAC80618 standard;

DNA;

20 ₽P

14-FEB-2001 AAC80618;

(first entry)

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GGTGCATCGATGCAGGGGGG 20

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CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-NNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make CC oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotide of the CC are able to induce either a cell-mediated (T-cell) response or a humoral CC care the sequence 5'-NNVT-CpG-RY-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-NNVT-CpG-NNNN-3' being able to induce a humoral CC cresponse. It is thought that after administration, the oligonucleotide cc cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or amellorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG which may be treated include eczema, allergic rinnition, and the conditions which may be treated include everal, bacterial, fungal and CC infections which may be treated include everal, bacterial, fungal and cc rheumatoid arthritis and multiple sclerosis), a disease associated with cc immune system deficiency, and symptoms resulting from exposure to an infection.
                                         Matches
                                                          Query Match
Best Local
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(ISHI/)
(VERT/)
                                                                                                                                                                                 solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                       Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; Page 29; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-006880/01.
                                                                                                                                                                                                                                                                                         immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
                                      20;
                                                                                                                                                                  invention.
                                                            Similarity
GGTGCATCGATGCAGGGGGG 20
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                                         Conservative
                                                                                                                         BP; 3 A;
                                                            100.0%;
                                                                                                                         3 C; 11 G; 3 T; 0 other;
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                                         <u>,</u>
                                                            Score 20;
Pred. No.
                                           Mismatches
                                                                                    DB 22;
                                           0,
                                                                                Length
                                           Indels
                                           0,
                                           Gaps
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Immunogenic
CpG oligodeoxynucleotide, SEQ ID NO:38
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parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; menuatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal;

Synthetic

WO200061151-A2

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

ISHII K. VERTHELYI D. KLINMAN D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent

Claim 4; Page 30; 46pp; English

CC are able to induce either a cell-mediated (F-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence S'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide cats on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction (CC (preferably asthma), or an infection, where an immunogenic CpG coligonucleotide is administered either alone or in combination with an anticaria, food allergies and other atopic conditions, and the curious which may be treated include everal, allergic rhinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the comprosed infections which may be treated include viral, bacterial, fungal and CC protozoal infections such as tuberculosis, AIDS, leishmania and CC protozoal infections such as tuberculosis, AIDS, leishmania and CC continuous expense induction may also be used in the commune system deficiency, and symptoms resulting from exposure to an autoimmune disorder (e.g., lupus erythematosus, eather of biological warfare. An immunogenic CpG oligonucleotide, either continuous expense in the continuous response in the continuous expense in the continuous response in the continuous expense is used in the continuous system deficiency, and symptoms resulting from exposure to an autoimmune warfare. An immunogenic CpG oligonucleotide, either continuous expense is used in the continuous expense is used in the continuous expense is used in the continuous expense in the continuous expense is used in the continuous expense expense in the continuous expense expense in the continuous expense exp oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The The invention relates to novel immunogenic CpG oligodeoxynucleotides to the host.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent

WPI; 2001-006880/01.

Klinman D,

Ishii K,

Verthelyi D;

ISHII K. VERTHELYI D.

D.

Claim 4; Page 30; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AACBO591-CB0723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNT-CpG-WNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-MNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide

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RESULT 11
AAC80623
ID AAC80
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Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                               CGG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenit; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; waccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa. parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solld tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
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                                                                                                                                                                                                                                                                                    12-APR-1999;
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                                                                                                                                                                                                                                                                                                                           19-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                    antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunogenic
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                                                                                                                                                                                                                                                                 (KLIN/) KLINMAN
                                                                                                                                                                                                                                                                                                                                                                                           immune deficiency; biological warfare agent; cytostatic; antiarthritic;
intimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG oligodeoxynucleotide, SEQ ID NO:43.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry
                                                                                                                                                                                                                                                                                    9905-0128898
                                                                                                                                                                                                                                                                                                                                                                                    dermatological;
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acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immunogenic CpC coligonucleotide is administered either alone or in combination with an CC anti-allergenic agent or anti-infectious agent. The allergic conditions CC which may be treated include eczema, allergic crinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fungal and CC protozoal infections such as tuberculosis, AIDS, leishmania and CC protozoal infections such as tuberculosis, AIDS, leishmania and CC infections with an autoimmune disorder (e.g., lupus erythematosus, the CC rheumatoid arthritis and multiple sclerosis), a disease associated with CC immune system deficiency, and symptoms resulting from exposure to an CC agent of biological warfare. An immunogenic CpG oligonucleotide, either CC solid tumour cancer. The induction of an immune response is used in CC solid tumour cancer. The induction of an immune response is used in CC oligonucleotide is preferably administered to lymphocytes wivo, CC producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC80652
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                                                                                                                                                                                                                                                                                                                                                                                         Opg oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; hrcell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa
                                                                                                                                                                                                                                                                                                                      parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAC80652 standard; DNA; 20
                                                                    (KLIN/)
                                                                                                                                                                                                                                  WO200061151-A2
                                                                                                                                                                                                                                                                                                     antiasthmatic; dermatological;
                Klinman
                                                                                                                        12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72.
                                                    (VERT/)
                                                                                                                                                            12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                KLINMAN D.
) ISHII K.
) VERTHELYI D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GGTGCATCGATGCAGGGGGG 20
              'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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             Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                          99US-0128898
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                  Verthelyi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                       phosphorothioate; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                protozoal;
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Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
Claim 4; Page 35; 46pp; English.
                                                                                                                                                                                                WPI; 2001-006880/01.
                                                               resulting from exposure to a bio-warfare agent
                                                                                                                                     Of
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CC acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immune presponse is CC useful for treating agent or anti-infections where an immune presponse is coligonuclectide is administered either alone or in combination with an CC anti-allergenic agent or anti-infectious agent. The allergic conditions CC (urticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fungal and CC schistcosomiasis. Immune response induction may also be used in the CC treatment of an autoimmune disorder (e.g., lupus erythematosus, CC immune system deficiency, and symptoms resulting from exposure to an CC agent of biological warfare. An immunogenic CGG oligonuclectide, either CC alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in CC antisense therapy and to improve the efficacy of a vaccine. The CC oligonuclectide is preferably administered to lymphocytes ex vivo, CC producing activated lymphocytes which are then administered to the host.

The necessary represents an immunogenic CGC oligonactivated is calculated. The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-NNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make CC oligonucleotide delivery complex comprising an oligonucleotide of the CC comprising and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral CC are able to induce either a cell-mediated frequence CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide carts or anti-parametering calls (or marchance and dendritic The present sequence represents an invention. 3 C; 11 G; 3 T; 0 other; immunogenic oligodeoxynucleotide

Sequence 20 BP; 3 A;

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              ş
                              Matches
                                            Query Match
                                     Local
        1 GGTGCATCGATGCAGGGGGG 20
ш
                              20;
                                     Similarity
GGTGCATCGATGCAGGGGGG
                              Conservative
                                            100.0%;
                                      100.0%;
                              0,
                                     Score 20;
Pred. No.
20
                              Mismatches
                                      2
                                             DB 22;
                              ٥,
                                             Length 20;
                              0,
                               Gaps
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RESULT 13
ABK46460
ID ABK46
ABK46460 standard; DNA;
                                   ABK46460
                                          20
                                          gg.
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05-JUN-2002

(first entry)

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Paramyxoviridae; F protein; respiratory syncytial virus; viral bronchiolitis; pneumonia; infectious pulmonary disc
                                                                    unmethylated
                                                                                                                               Immunostimulatory unmethylated
                                                              CpG; oligdideoxynucleotide; ODN; virucide; vaccine;
                                                                                                                               CpG oligodideoxynucleotide #50.
             disease;
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dysplasia;

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RESULT 14
ABK46462
IID ABK46
XX ABK46
XX ABK46
XX ABK46
XX Immur
XX Immur
XX Unmet
KW Unmet
KW Unmet
KW Viral
KW Viral
KW Viral
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                  unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000; 2000US-229307P.
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                                                     10-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
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     (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
                                                                                                                                      09-AUG-2001;
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20; Conserv
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llarity 100.0%;
Conservative 0
                                                     2000US-224011P.
2000US-229307P.
                                                                                                                                      2001WO-US41633
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Pred. No.
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RESULT 15
ABK46465
ID ABK46
XX
ABK46465
AC ABK46
XX
DT 05-JI
DY 07-JI
DY 07
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Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unmethylated CpG; oligdideox
Paramyxoviridae; F protein;
viral bronchiolitis; pneumor
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                                                                                                         Vaccine for immunising patient against respiratory epitopes of Paramyxoviridae F protein, and cytosine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                 Mond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             viral bronchiolitis; pneumonia; infectious pulmonary diseas bronchopulmonary dysplasia; congenital heart condition; ss.
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                                                                                                                                                                                                                                                                                                                                                                                        10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
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                                                        Claim 4; Page 8; 30pp; English.
                                                                                                                                                                                                                              WPI; 2002-227118/28
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                                                                                                                                                                                                                                                                                                                                    JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       represents an oligodideoxynucleotide that can of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                              Prince G,
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The invention describes a vaccine comprising one or more epitopes of a

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Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
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Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;

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Search completed: January 20, 2004, 17:31:47 Job time : 125.706 secs

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Minimum
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3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/FCTUS_COMB.seq:*
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US-09-252-991A-7259
US-09-252-991A-7359
US-09-252-991A-1464
US-09-252-991A-13644
US-09-252-991A-13697
US-09-252-991A-13697
US-09-252-991A-1425
US-09-252-991A-1425
US-09-252-991A-1425
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US-09-103-840A-1
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8 US-09-107-532A-3414
1 US-08-454-196-3
8 US-09-107-532A-1250
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Sequence 7, Appli
Sequence 7138, Ap
Sequence 7259, Ap
Sequence 1486, Appl
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Sequence 13644, A
Sequence 13644, A
Sequence 13697, Ap
Sequence 1690, Ap
Sequence 1690, Ap
Sequence 1, Appli
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Sequence 3, Appli
Sequence 1250, Ap
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Sequence 191, Ap
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ALIGNMENTS	US-08-764-233A-1	US-08-311-731A-131	US-09-028-934-6	US-08-729-214-6	US-08-457-335A-6	US-08-764-233A-4	US-08-458-076A-6	US-08-457-646A-6	US-08-457-342-6	US-08-456-837-6	US-08-258-261B-6	PCT-US93-11725-1	US-09-312-283C-213	US-09-188-930-213	US-08-615-170-4	US-08-615-170-2	US-09-328-857A-1	US-09-291-046-1
	Sequence 1, Appli	Sequence 131, App	Sequence 6, Appli	Sequence 6, Appli	Sequence 6, Appli	Sequence 4, Appli	Sequence 6, Appli	Sequence 1, Appli	Sequence 213, App	Sequence 213, App	Sequence 4, Appli	Sequence 2, Appli	Sequence 1, Appli	Sequence 1, Appli				

TIGNMENT

Sequence 2, Application Patent No. 6136539

US/09248571

APPLICANT: BASBAUM, CAROL
APPLICANT: GALLUP, MARIANNE
APPLICANT: DAIZONG, LI
APPLICANT: GEBREMICHAEL, ASSEFA
APPLICANT: GENSCH, ERIN

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Sequence 2, Application US/09553736

Patent No. 6440672

GENERAL INFORMATION:

APPLICANT: BASSAUM, Carol

APPLICANT: GALLUP, Marianne

APPLICANT: DAIZONG, Li

APPLICANT: GENERALICHAEL, Assefa

APPLICANT: GENERON, Erin

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR

TITLE OF INVENTION: MUCIN GENE EXPRESSION

PILE REFERENCE: UCSP-012/03US

CURRENT APPLICATION NUMBER: US/09/553,736

CURRENT FILING DATE: 2000-04-20

PRIOR APPLICATION NUMBER: US 09/248,571
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; ORGANISM: Homo sapiens
US-09-248-571-2
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CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 7138
LENGTH: 1584
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; ORGANISM: Homo sapiens
US-09-553-736-2
; TYPE: DNA
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-7259
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US-09-252-991A-7138
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SEQ ID NO 2
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GENERAL INFORMATION:
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LENGTH: 1794
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Best Local Similarity 89.5%;
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                                                                                                 PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 199-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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RESULT 6
US-09-129-030-46
; Sequence 46, Application US/09129030A
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-7359
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                                                                   ; NAME/KEY: CDS
; LOCATION: (303)..(620)
US-09-129-030-46
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                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 66
SOFTWARE: PatentIn Ver. SEQ ID NO 46
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Best Local Similarity
Matches 17; Conserv
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SEQ ID NO 7359
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APPLICANT: Marc J.
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Query Match 74.0%;
Best Local Similarity 88.9%;
Matches 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/129,030A CURRENT FILING DATE: 1998-08-04 EARLIER APPLICATION NUMBER: AU PN7856 EARLIER FILING DATE: 1996-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: COMMONWEALTH SCIENTIFIC AND TITLE OF INVENTION: GENOMIC PPO CLONES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1998-0
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                                                                                                                                                                                                                                                                                          EARLIER APPLICATION NUMBER: PCT/AU97/00041
EARLIER FILING DATE: 1997-01-24
                                                                                                                                                                                                                                                                                                                           EARLIER APPLICATION NUMBER: AU PO2361
EARLIER FILING DATE: 1996-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 57072-PCT-US
                                                                                                                                    NAME/KEY: CDS
LOCATION: (1)..(300)
                                                                                                                                                                       ORGANISM: RICE FEATURE:
                                                                                                                                                                                                         LENGTH: 622
TYPE: DNA
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NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
NVENTION: NUCLEIC ACID AND TAGNOSTICS AND THERAPEUTICS
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107196.136
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85.0%;
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85.0%;
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   Score 14.8; DB 3;
Pred. No. 1.6e+02;
0; Mismatches 2
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Pred. No. 1
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Pred. No. 1
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                                 DB 3;
                                   Length 622;
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RESULT 9
US-09-252-991A-13444/c
; Sequence 13444, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
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; Sequence 13644, Application US/09252991A
; Patent No. 6551795
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LENGTH: 759
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APPLICANT: Marc J.
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LENGTH: 1086
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APPLICANT: Marc J.
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CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
                                                                                                                                                                                                                                                                                                              ORGANISM: Pseudomonas aeruginosa 09-252-991A-13644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                      Local Similarity hes 15; Conserv
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Pred. No. 2.
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Pred. No. 2.5e+02;
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RESULT 10
US-09-252-991A-13697
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                  Sequence 1592, Application US/09252991A

Patent No. 6551795

GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: AUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136

CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,789
PRIOR FILING DATE: 1998-02-18
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SEQ ID NO 13697
LENGTH: 1194
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SEQ ID NO 13444
LENGTH: 1092
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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TITLE OF INVENTION: NUCLEIC ACID AND ANINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER: CEC. LT. NIG. 23/12
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PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
PRIOR FILING DATE: 1998-07-27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Pseudomonas aeruginosa
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SEQ ID NOS:
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93.8%;
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Pred. No. 2
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-09-252-991A-1690
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US-09-252-991A-1425/c
                                                                                                                    US-09-252-991A-1690
                                                                                                                                                                                                          FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-252-991A-1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 1425
LENGTH: 1356
TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 72.0%;
Best Local Similarity 93.8%;
Matches 15; Conservative
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LENGTH: 1308
                                                                                                                                                                          SEQ ID NO 1690
LENGTH: 3591
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1690, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                      Matches
                                                           Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18 PRIOR APPLICATION NUMBER: US 60/094,190 PRIOR FILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                     TYPE: DNA ORGANISM: Pseudomonas aeruginosa
                                    Local Similarity 93.8
les 15; Conservative
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15; Conserv
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GGTGCATCGATGCAGG 16
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                                               72.0%;
93.8%;
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Pred. No. 2.
                                                     Score 14.4; DB 4;
Pred. No. 2.9e+02;
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                                      Mismatches
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.6e+02;
                                                                           DB 4;
                                                                         Length 3591;
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; LENGTH: 5496
; TYPE: DNA
; ORGANISM: Fungus
US-09-462-284-1
Search completed: January 20, 2004, 17:17:04 Job time : 39.9412 secs
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US-09-462-284-1/c
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US-09-801-191A-3/c
                                                                                                                                                                                                                                         SEQ ID NO 3
LENGTH: 32654
TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: YE, Jame et al
                                                                                                                                               Best Local Similarity Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/09801191A Patent No. 6537788
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                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 8265-298
CURRENT APPLICATION NUMBER: US/09/462,284
CURRENT FILING DATE: 2000-01-03
NUMBER OF SEQ ID NOS: 9
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN ITITLE OF INVENTION: THEREOF FILE REFERENCE: CLOOL159
CURRENT APPLICATION NUMBER: US/09/801,191A
CURRENT FILING DATE: 2001-03-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Doumas, Agnes
APPLICANT: Affolter, Micheal
APPLICANT: Van Den Broek, Peter
TITLE OF INVENTION: CLONING OF THE
TITLE OF INVENTION: PROLYL-DIPEPTIDYL-PEPTIDASE FROM
TITLE OF INVENTION: ASPERGILLUS ORYZAE
FILE REFERENCE: 8265-298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                 15; Conservative
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                                                                                                             5 CATCGATGCAGGGGG 20
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Monod, Michel
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                                                                                                                                                 72.0%; Score 14.4; DB 4;
93.8%; Pred. No. 3.4e+02;
tive 0; Mismatches 1
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Minimum DB seq length: 0
Maximum DB seq length: 200000000
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20
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Gapop 10.0 , Gapext 1.0
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                             Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_

2: /cgn2_6/ptodata/1/pubpna/PCT_

2: /cgn2_6/ptodata/1/pubpna/PCT_

4: /cgn2_6/ptodata/1/pubpna/US06_

1: /cgn2_6/ptodata/1/pubpna/US06_
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                                                                                                                                                                                                                                                                                                                                                                    cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
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                                                                     /cgn2_6/ptodata/1/pubpna/US09E_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq2:*
/cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                            6/ptodata/1/pubpna/US08
                                                                                                                                                                                                                                                                                                                        6/ptodata/1/pubpna/PCTUS
_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
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                                                                                                                                                                                                                                                                                                                        /pubpna/US07_NEW_PUB.seq:*
/pubpna/PCTUS_PUBCOMB.seq:*
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PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

Query

	NO.	Score	Match Length	ngth 1	DB	ID .	Description
;	- :	20	100.0	20	ដ	US-10-194-035-32	Sequence 32, Appl
	N	20	100.0	20	13	US-10-194-035-34	Sequence 34, Appl
	ω	20	100.0	20	13	US-10-194-035-37	37,
	4.	20	100.0	20	13	US-10-194-035-38	38,
	ຫ	20	100.0	20	13	US-10-194-035-43	Sequence 43, Appl
	σ	20	100.0	20	3	US-10-194-035-72	72,
	7	20	100.0	20	15	US-10-068-160-1	Sequence 1, Appli
	œ	20	100.0	20	15	US-10-068-160-54	Sequence 54, Appl
	9	19	95.0	19	13	US-10-194-035-53	Sequence 53, Appl
	10	19	95.0	19	13	US-10-194-035-73	•
	11	18.4	92.0	20	13	US-10-194-035-40	-
	12	18.4	92.0	20	13	US-10-194-035-81	•
	13	18.4	92.0	20	13	US-10-194-035-82	Sequence 82, Appl
	14	18.4	92.0	20	ц	US-10-194-035-100	Sequence 100, App
	15	18.4	92.0	20	13	US-10-194-035-101	Sequence 101, App

RESULT 2

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
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-10-068-160-4	-10-068-16	-10-068-160-	-10-068-	0-194-035-1	0-194-035	-10-194-035-9	-10-194-035-9	ភូ	94-035-4	0-194-035-	-10-194-035-2	-10-194-035-	-10-194-035-	4-035-2	-10-068-160-	-10-068-160-1	-10-068-160-6	8-160-6	-10-068-160-	0-5	-10-068-160-3	US-10-068-160-35	8-160-3	-09	8-160-	-10-068-160-	-10-194-035-	4-035-	-10-194-035-
equence 4	equence 31	e 26	equence 2,	equence 10	e 96	equence 94	equence 90	e 42	equence 41	e 39	e 27	equence 88,	e 83,	equence 22,	equence 38,	equence 12,	e 65,	equence 64,	e 53,	e 52,	e 37,	e 35,	e 30,	equence 21,	e 11,	e 7,	e 10	Sequence 106, App	equence 104

ALIGNMENTS

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PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 32
LENGTH: 20
TYPE: DNA
TYPE: DNA
PRESENTEM: Artificial Sequence
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                                 S
                                                                                                                                                      ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-32
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                                                                                         Query Match
Best Local Similarity
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                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: PCT/US01/01122 PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                                     1 GGTGCATCGATGCAGGGGGG 20
GGTGCATCGATGCAGGGGGG 20
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                                                                             Conservative
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                                                                                             100.0%; Score 20;
100.0%; Pred. No.
                                                                           0;
                                                                               Mismatches
                                                                                                                DB 13; Length 20;
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-37
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE ANI
FILE REFERENCE: 4239-63317
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
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SEQ ID NO 37
LENGTH: 20
TYPE: DNA
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LENGTH: 20
                                                                           Matches
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver: 2.1
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NUMBER OF SEQ ID NOS: 119
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                                                                                             Local Similarity
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to. US20030144229A1
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Pred. No. 2.1;
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND IT:
FILE REFERENCE: 4239-63117
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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SEQ ID NO 38
LENGTH: 20
TYPE: DNA
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Publication No. US20030144229A1
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                           LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                          100.0%; Score 20; DB ilarity 100.0%; Pred. No. 2.1; Conservative 0; Mismatches
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CURRENT APPLICATION NUMBER: US/10/194,035;
CURRENT FILING DATE: 2002-07-12;
PRIOR APPLICATION NUMBER: PCT/US01/01122;
PRIOR FILING DATE: 2001-07-19;
PRIOR APPLICATION NUMBER: US 60/176,115;
PRIOR FILING DATE: 2000-01-14;
NUMBER OF SEQ ID NOS: 119;
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 72;
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Publication No. US2003014422911
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
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Publication No.
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Best Local Similarity
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VERTHELYI, Daniela TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REP APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
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                                                                                                                                                                                          LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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GGTGCATCGATGCAGGGGGG 20
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LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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SEQ ID NO 53
LENGTH: 19
TYPE: DNA
ORGANISM: Artificial Sequence
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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Pred. No. 2.1;
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US-10-194-035-40
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SEQ ID NO 40
LENGTH: 20
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Publication No. US20030144229A1
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CURRENT FILING DATE: 2002-07-12
PRIOR PPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLECTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194;035
CURRENT FILING DATE: 2002-07-12
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SEQ ID NO 73

LENGTH: 19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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NUMBER OF SEQ ID NOS: 119
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ORGANISM: Artificial Sequence
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AND HUMAN SERVICES
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LENGTH: 20
TYPE: DNA
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SEQ ID NO 82
LENGTH: 20
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                                                                                    Query Match
Best Local :
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 119
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No. US20030144229A1
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; TYPE: DNA; ORCANISM: Artificial Sequence; FEATURE: ; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-100
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US-10-194-035-101
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT TEILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US/60/176,115
PRIOR APPLICATION NUMBER: US/60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 101
LENGTH: 20
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SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 100
LENGTH: 20
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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PPLICANT: VERTHELYI, Daniela
TLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
LE REFERENCE: 4239-63317
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Search completed: January 20, 2004, 17:24:35 Job time : 133.353 secs

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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

TITLE JOURNAL	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AX194432	RESULT 1
Oligodeoxynucleotide and its use to induce an immune response Patent: WO 0151500-A 32 19-JUL-2001; Secretary of the Department of Health and Human Services (US)	Klinman, D., Ishii, K. and Verthelyi, D.	1	artificial sequences.	synthetic construct	synthetic construct		AX194432.1 GI:15385088	AX194432	Sequence 32 from Patent WO0151500.	AX194432 20 bp DNA linear PAT 28-AUG-2001		

ALIGNMENTS

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RESULT 2
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Oligodeoxymucleotide and its use to induce
Patent: WO 0151500-A 37 19-JUL-2001;
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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|mol type="genomic DNA"
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|/note="Synthetic HDR"
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Patent: WO 0193902-A 538 13-DEC-2001;
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Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDICINE (US)
                                                                          Mond, J.J., Prince, G. and Klinman, D.M. Vaccine against RSV Patent: W0 0211761-A 61 14-FEB-2002; HENRY M. JACKSON FOUNDATION FOR THE A
                                                                                                                                                                                                                                Sequence 61 from Patent
AX465393
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JOURNAL
Search completed: January 20, 2004, 20:43:21 Job time: 707.059 secs
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                                                             Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 bp
Sequence 90 from Patent WO0211761.
AX465422
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Immunogenic CpG ol	Immunogenic CpG ol	Immunoreactive CpG	Description						

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ABL35597	ABL35610	ABL35598	ABL35624	ABL35620	ABL35586	ABL35576	ABL35625	ABL35587	ABL35577	ABK46501	ABK46481	AAC80653	AAC80633	AAS09623	AAS09603	ABL35537	ABL35600	ABL35595	ABL35607	ABL35601	ABL35589	ABL35618	ABL35574	· ABL35612	ABL35579	ABL35568	ABK46500	ABK46471	ABK46466	ABK46465	ABK46462	ABK46460	AAC80652	AAC80623	AAC80618	AAC80617
Immunostimulatory	Immunogenic CpG ol		Immunoreactive CpG	Immunoreactive CpG	Immunostimulatory	lator	ဌမှ	င္မွ	6	Immunogenic CpG ol																										

ALIGNMENTS

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RESULT 1
AAS09582
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Immunoreactive CpG sequence-containing oligonucleotide #32.
                                               26-SEP-2001 (first entry)
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria, hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

Synthetic.

19-JUL-2001.

WO200151500-A1.

12-JAN-2001; 2001WO-US01122.

14-JAN-2000; 2000US-0176115.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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ce mediated immune response, involving non-B cell activation, interferon
ce gamma (IFN-gamma) production or a humoral immune response involving B
cell activation, antibody and interleukin-6 production in a host, for
treating, preventing or ameliorating an allergic reaction, e.g. asthma,
ce cancer, e.g. solid tumour cancer, a disease associated with the immune
ce system e.g. autoimmune disorder or an immune system deficiency, infection
ce or a symptom resulting from exposure to bio-warfare agent in a human. The
ce induction of immune response improves the efficacy of a vaccine and is
ce used in antisense therapy. The ODN are useful for treating, preventing or
ce oryza, hay fever, bronchial asthma, urticaria (hives), food allergies
ce and other atopic conditions, for improving the efficacy of vaccines
ce against hepatitis A, B and C, human immunodeficiency virus (HIV) and
ce erythematosus and autoimmune diseases surheumatoid arthritis and
ce crythematosus and autoimmune diseases srheumatoid arthritis and
ce tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and
conthirs resulting from exposure of bio-warfare agent, including Ebola,
including Ebola, interests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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                                                                                                                                                               CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar
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                                                      WO200151500-A1
                                                                                                                                                  schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS
                                                                                                                                                                                                                                                                                                                      Immunoreactive CpG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      represent oligodeoxynucleotides (ODN) of at
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               multiple CpG sequences, where one of the Cp from another of the multiple CpG sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 20; DB 22
Pred. No. 0.075;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 20
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he CpG
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                                                                                                                                                                                                                                                                                 gamma;
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AASO9587
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC nucleotides comprising multiple CpG sequences, where one of the CpG cc sequences is different from another of the multiple CpG sequences. CC rhe ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cc cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, c cancer, e.g. solid tumour cancer, a disease associated with the immune cancer, e.g. solid tumour cancer, a disease associated with the immune corresponse involving B c induction of immune response improves the efficacy of a vaccine and is cused in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies c against hepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune system deficiencies, e.g. lupus creating immune system deficiencies, in the arthernia and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as rheumatoid arthritis and corythematosus and autoimmune diseases such as
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania an symptoms resulting from exposure of bio-warfare agent, including Ebola Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oligodeoxynucleotides for inducing an immune response to treat are prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences -
                                                                                                                                          CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 5; Page 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20
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                                                                                                                                                                                                                                                                                                                                                  26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                AAS09587;
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS09587 standard; DNA; 20
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                                                                                                                                                                                                                                                                                                    Immunoreactive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                            sequence-containing oligonucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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Leishmania;

Ebola; Anthrax;

Listeria; ss

hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;

WO200151500-A1.

17

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AAS09588
ID AASC
XX
AC AASC
AXY
DT 26-S
XX
XX
EN CPG
KW IFN.
KW CPG
KW Lthen
KW Lthen
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                             IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infectibio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
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                                                                                                                                                                                                                                                                                                                                     Immunoreactive CpG sequence-containing oligonucleotide #38.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09588 standard; DNA;
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                                                                                                                                                                                                                                                 CpG sequence; immune response; non-B cell activation; interferon gamma;
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                                       hay fever; urticaria; hives;
ls; human immunodeficiency vii
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP; 3 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 C; 11 G; 3 T; 0
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apy; eczema; allergic rhinitis;
food allergy; atopic condition;
rus; HIV; malaria; Francisella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other;
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RESULT 5 AAS09593

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GGTGCATCGATGCAGGGGGG

20

0,

AXEXEXEX

26-SEP-2001

(first

entry)

AAS09593;

AAS09593 standard;

DNA;

ВP

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

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S
                                                                                                                                                                                    CC nucleotides comprising multiple CpG sequences, where one of the CpG compression of the cpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma ([FN-gamma) production or a humoral immune response involving B cc cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cc cancer, e.g. solid tumour cancer, a disease associated with the immune cc system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is cused in antisense therapy. The ODN are useful for treating, preventing or cameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies cagainst thepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune system deficiencies, e.g. lupus caying the solerosis, infections including Francisella, schistosomiasis, infections infections such as rheumatoid arthritis and content and infections including Francisella, schistosomiasis, infections including Francisella, schistosomiasis, infections including Francisella, schistosomiasis, infections of property syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                            Matches
                                                              Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oligodeoxynucleotides for inducing an immune response to treat a prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at le nucleotides comprising multiple CpG sequences, where one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                              Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
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                                                                                                                                                                         Anthrax and Listeria.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5; Page 33; 48pp; English.
    1 GGTGCATCGATGCAGGGGG
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                                                                  Similarity
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                                            Conservative
                                                              100.0%; Score 20; I
100.0%; Pred. No. 0.
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                                            Gaps
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RESULT 6
AAS09622
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                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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AAS09622 standard; DNA;
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                                                                                                                                                                                                                                                   GGTGCATCGATGCAGGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEPT HEALTH & HUMAN SERVICES.
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CC AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 cmucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. CC The ODN are useful for inducing an immune response, preferably a cell-cm mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or amplicrating allergic reactions, including eczema, allergic rhinitis or CC cargia, hay fever, bonochial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cagainst hepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune diseases such as rheumatoid arthritis and corporating from exposure of bio-warfare agent, including Eczenia, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and Symptoms resulting from exposure of bio-warfare agent, including Ebola,
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                                                                                                 Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligodeoxymucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder an symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lugus erythematosus; rheumatoid archiritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prevent an allergic reaction, car symptoms resulting from exposure multiple CpG sequences -
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                                                                                                                                                            Sequence 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunoreactive CpG sequence-containing oligonucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; Page 39; 48pp; English.
                                                                                20;
                                                                                                                                                                                                      and
                                                                                                     Similarity
                           GGTGCATCGATGCAGGGGGG 20
  GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                              BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                      Listeria.
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                                                                                                   100.0%;
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                                                                                                       Score 20;
Pred. No.
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CC (AACGOSB1-C8073). The oligonuclectide are at least 10 bases long CC (AACGOSB1-C80731). The oligonuclectide are at least 10 bases long CC and comprise one of the generic sequences 5. NNNT-CpG-NNNN-3 or CC oligonuclectides optionally have phosphorothicate linkages which make CC oligonuclectides optionally have phosphorothicate linkages which make CC cinvention and a targetting agent, and a pharmaceutical composition CC comprising the oligonuclectide delivery complex. The oligonuclectides of the CC cinvention and a targetting agent, and a pharmaceutical composition CC comprising the oligonuclectide delivery complex. The oligonuclectides of the sequence 5. NNNT-CpG-NNNN-3 being able to induce a cell-mediated (T-cell) response or a humoral CC response. It is thought that after administration, the oligonuclectide CC cells, which then release cytckines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC cells), which then release cytckines, leading to activation of natural CC wisting part or or B-cells. The induction of an immune response is CC infections which may be treated include eczema, allergic renditions with an CC infections which may be treated include viral, bacterial, fungal and CC infections which may be treated include viral, bacterial, fungal and CC schistosomiasis. Immune response is natural partice of the sequency of the sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B-cell response; antibody produ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Page 29; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-006880/01
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                           schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (/IHSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention relates to novel immunogenic CpG oligodeoxynucleotides
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ISHII K.
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       disease associated with
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                                          The invention relates to novel immunogenic CpG oligodeoxynuclectides (AAC80581-C80723). The oligonuclectide are at 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host.
                                                                                                                                              Novel oligonucleotides useful for the prevention and treatment allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence of the invention.
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                                                                                                                       Claim
                                                                                                                                                                                                              WPI; 2001-006880/01
                                                                                                                                                                                                                                            Klinman D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:34.
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VERTHELYI D.
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                                                                                                                                                                                                                                          Ishii K,
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                                                                                                                       29;
                                                                                                                                                                                                                                                                                                                                      99US-0128898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dermatological;
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                                                                                                                     46pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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                                                                                                                   English
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Pred. No.
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oligonucleotides optionally have phosphorothioate them more resistant to degradation. The invention

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linkages which make also relates to an

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RESULT 9
AAC80617
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CPG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CPG-MWNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                        CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antianterobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczeme, allergic rhinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AIDS, leishmania and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG
12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAC80617 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                comprising
                                                                       12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                              WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    invention and a targetting agent, and a comprising the oligonucleotide delivery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention.
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
99US-0128898
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 20; DB 22
Pred. No. 0.075;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protozoal;
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밁 S

RESULT 10
AAC80618
ID AAC80
XX
AC AAC80
XX
DT 14-FE

AAC80618;

AAC80618 standard; DNA; 20

14-FEB-2001

(first entry)

밁 S

Matches Query Match Best Local :

Similarity

100.0%; 100.0%;

Score 20; Pred. No. Mismatches

0.075; DB 22; 0

Length 20;

0

Gaps

0

Conservative

0,

L 20;

GGTGCATCGATGCAGGGGGG 20

20

Sequence 20

BP; 3 A;

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C; 11 G; 3 T; 0 other;

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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cactivation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (C. (preferably asthma), or an infection, where an immune presponse is coligonucleotide is administered either alone or in combination with an coligonucleotide is administered either alone or in combination with an coligonucleotide is administered either alone or in combination with an coligonucleotide is administered either alone or in combination with an coligonucleotide is administered either alone or in combination with an coligonucleotide is present and cher atopic conditions, and the curicaria, food allergies and other atopic conditions, and the curicaria, food allergies and other atopic conditions, and the curicaria, food allergies and other atopic conditions, and the curicaria, fingal and combinations such as tuberculosis, AIDS, leishmania and combinations such as tuberculosis, AIDS, leishmania and combinations and multiple sclerosis), a disease associated with capture of biological warfare. An immunogenic CpG oligonucleotide, either colone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in cell colone or in combination with an anti-cancer agent, is useful for treating conducing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligonexynucleotide is preferably administered to lymphocytes ex vivo, of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KLIN/)
(ISHI/)
(VERT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 29; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-006880/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AAC80581-C80723).
                                                     the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    invention relates to novel immunogenic CpG C80581-C80723). The oligonucleotide are at
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) ISHII K.
) VERTHELYI D.
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Immunogenic
CpG oligodeoxynucleotide, SEQ ID NO:38
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parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; pr mmunogenic; oligodeoxynucleotide; unmethylated; antigen-presenting cell; unogenic; cytokine release; natural killer cell; NK cell activation; protozoal;

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. ISHII K. VERTHELYI D.

Klinman 'n Ishii K, Verthelyi Ö

WPI; 2001-006880/01.

symptoms resulting from exposure to a bio-warfare agent Novel oligonucleotides allergies, cancer, and useful for the prevention and treatment of autoimmune disorders and for ameliorating

Claim 4; Page 30; 46pp; English

CC of the sequence 5'-MNNT-Opd-WNNN-3' being able to induce a humoral corresponse. It is thought that after administration, the oligonucleotide cacts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural contivation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic Cpc cligonucleotide is administered either alone or in combination with an contivation of continual contin oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the then administered to the host

oligonucleotide

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RESULT 11
AAC80623
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Best Local (
          The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-MNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNY-CpG-MNNN-3' being able to induce a humoral
                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cyrokine release; natural killer cell; NK cell activation; cell-mediated immune response; natcell response; bumoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                             Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                  Klinman D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:43.
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                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-006880/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immune deficiency; biological warfare agent; cytostatic; ar
antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KLIN/)
                                                                                                                                                                                                                                              4; Page 30; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                 ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGTGCATCGATGCAGGGGG
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                                                                                                                                                                                                                                                                                                                                                                                  Ishii K,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0128898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dermatological; phosphorothioate; ss.
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Pred. No.
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0.075;
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activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an induction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with

reaction

WPI; 2001-006880/01.

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RESULT 12
AAC80652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cc anti-allergenic agent or anti-infectious agent. The allergic conditions cc which may be treated include eczema, allergic rhinitis, hayfever, cc urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and cprotozoal infections such as tuberculosis, AlDS, leishmania and cc schistosomiasis. Immune response induction may also be used in the cc treatment of an autoimnune disorder (e.g., lupus erythematosus, cc rheumatoid arthritis and multiple sclerosis), a disease associated with cc alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in combination with an anti-cancer agent, is useful for treating coligonucleotide, either coligonucleotide is preferably administered to lymphocytes ex vivo, corroducing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
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Best Local 9
                                                                                                                                                                                                                                                                                           cpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural killer cell; NK cell activation; cell-mediated immune response; natural response; induction; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                               (KLIN/)
(ISHI/)
(VERT/)
                                                                                                                                                     12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                            Synthetic
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                Klinman
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              'n
                                                 VERTHELYI D.
                                                                   KLINMAN D.
ISHII K.
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              Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                      99US-0128898
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100.0%; Pred. No. 0.075;
tive 0; Mismatches
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                Verthelyi
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                                                                                                                                                                                                                                                                                                                                                                                      protozoal;
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acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by
Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                                                                                                           Claim 4; Page 35; 46pp; English.
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CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long cand comprise one of the generic sequences 5 -NNNT-C9C-NNNA-3 or comprise one of the generic sequences 5 -NNNT-C9C-NNNA-3 or comprise one of the generic sequences 5 -NNNT-C9C-NNNA-3 or comprise one of the generic sequences 5 -NNNT-C9C-NNNA-3 or comprise one of the generic sequences 5 -NNNT-C9C-NNNA-3 or comprise of the colligonucleotide delivery complex comprising an oligonucleotide of the colligonucleotide delivery complex comprising an oligonucleotide of the colligonucleotide delivery complex. The oligonucleotides can be delivery complex of the sequence comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence coll. antibody) response, with oligonucleotides of the sequence of the sequence 5 -NNNT-C9C-NNNA-3 being able to induce a numoral collection of the sequence collection of the sequence collection of the sequence of the sequence 5 -NNNT-C9C-NNNA-3 being able to induce a humoral collection of the sequence collection of the collection which and the collection of the collection of the sequence conditions of the may be treated include viral, bacterial, fungal and collections which may be treated include viral, bacterial, fungal and collections which may be treated include viral, bacterial, and the collection of the c Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other; the invention.

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Best Local
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GGTGCATCGATGCAGGGGGG
               GGTGCATCGATGCAGGGGGG 20
                               Conservative
                                      100.0%;
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                                      Score 20;
Pred. No.
20
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                                              DB 22;
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RESULT 13
ABK46460
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          Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                           ABK46460;
                                                                                                                                                                        ABK46460 standard;
                                                       unmethylated
                                                                                Immunostimulatory unmethylated
                                                                                                               05-JUN-2002
                                                     CpG; oligdideoxynucleotide; ODN; virucide; vaccine;
                                                                                                               (first entry)
                                                                                                                                                                        DNA;
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                                                                                   CpG oligodideoxynucleotide #50.
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RESULT 14
ABK46462
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Best Local
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                                                                                                                                                                      Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                               unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV;
                                                                                                                                                                                                                                                                    05-JUN-2002
                                                                                                                                                                                                                                                                                               ABK46462
                                                                                                                                                                                                                                                                                                                        ABK46462 standard;
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01-SEP-2000; 2000US-229307P.
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                          10-AUG-2000;
01-SEP-2000;
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(JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
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                          2000US-224011P.
2000US-229307P.
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by guanine
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ABK46465
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart can be used in the
                                                      Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides
                                                                                                                                               Mond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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                                                                                                                                                                                                      10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
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                                                                                                                                                                                                                                                                                                                                         Synthetic
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                             Claim 4; Page 8; 30pp; English.
                                                                                                                    WPI; 2002-227118/28
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                                                                                                                                                                                                                                                                                 14-FEB-2002
                                                                                                                                                                                                                                                                                                            WO200211761-A2
                                                                                                                                                                                                                                                                                                                                                                                      viral bronchiolitis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine phosphate bond-oligodideoxynucleotides -
                                                                                                                                               Prince
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Prince G,
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                                                                                                                                                                            FOUND ADVANCEMENT MILITARY
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                                                                                                                                                                                                                                                                                                                                                                     congenital heart
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                                                                                                                                                                                                                                                                                                                                                                                      disease;
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                                                                       virus, has
by guanine
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The invention describes a vaccine comprising one or

more epitopes of a

Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasis, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.

និនិនិនិនិនិនិនិនិ Query Match 100.0%; Score 20; DB 24; Length 20 Best Local Similarity 100.0%; Pred. No. 0.075; Matches 20; Conservative 0; Mismatches 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other; Length 20; 0; Gaps 0,

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Search completed: January 20, 2004, 18:51:34 Job time : 123.235 secs

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Minimum DB seq length: 0
Maximum DB seq length: 500
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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20
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  Issued_Patents
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/cgn2 6/ptodata/2/ina/5B_COMB.seq:*
/cgn2 6/ptodata/2/ina/6B_COMB.seq:*
/cgn2 6/ptodata/2/ina/6B_COMB.seq:*
/cgn2 6/ptodata/2/ina/6B_COMB.seq:*
/cgn2 6/ptodata/2/ina/backfiles1.seq:*
  GenCore version 5.1.6 (c) 1993 - 2004 Compugen
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US-09-004-730A-40
US-08-981-799A-40
US-08-464-257-7
US-09-203-796A-7
US-09-203-796A-7
US-09-237-712-67
US-09-187-108-3
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US-09-187-108-5
5466585-5
5466585-5
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US-08-433-124A-138

US-08-976-413A-138

PCT-US96-06059-138

US-08-433-126A-59

US-08-433-124A-59

US-08-976-413A-59

PCT-US96-06059-59
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  US-08-630-822A-91
                                                                                                                                                                                                                                             PCT-US96-06059-137
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Sequence 7, Appli
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Sequence 7, Appli
Sequence 67, Appli
Sequence 67, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence
Patent No.
Sequence
                                                                                                               Sequence 137, App
Sequence 137, App
Sequence 137, App
Sequence 138, App
Sequence 138, App
Sequence 138, App
Sequence 59, App1
Sequence 91, App1
Sequence 91, App1
Sequence 91, App1
Sequence 91, App1
Sequence 40, App1
Sequence 40, App1
Sequence 40, App1
                                                                                                                                                                                                                                                                                                 Description
                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 137, Applica Patent No. 5688935 GENERAL INFORMATION:
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00000	116-08-587-33-14	US-08-089-862-7	US-09-203-796A-7	US-09-062-375-7	US-08-464-257-7	US-09-411-687A-13	US-09-411-687A-13	US-08-558-935-5	US-09-123-728-1	US-08-700-757-70	US-07-832-905B-70	US-08-602-725-13	US-09-371-772B-4239	US-09-615-192A-179	US-08-981-799A-40	US-09-004-730A-40	US-09-171-156A-40	US-09-005-069-91
2012 Tales	4	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 13, Appl	Sequence 13, Appl	Sequence 5, Appli	Sequence 1, Appli	Sequence 70, Appl	Sequence 70, Appl	Sequence 13, Appl	Sequence 4239, Ap	Sequence 179, App	Sequence 40, Appl	Sequence 40, Appl	Sequence 40, Appl	Sequence 91, Appl

ALIGNMENTS

US/08433126A

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COMPUTER: IBM DC COMPATIBLE
COMPUTER: IBM DC COMPATIBLE
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORDPETECT 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/433,12;
FILING DATE: 03 MAY 1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
APPLICATION NUMBER: 07/714,131
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
PILING DATE: 21-OCTOBER-1992
ATTORNARY/AGENT INFORMATION:
NAME: BATTY I SWANGEN
                                                                                                            TELEFAX: (303) 793-34: INFORMATION FOR SEQ ID NO:
TYPE: nucleic acid
STRANDEDNESS: single
TOOLLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                          NAME: BAITY J. SWAINSON
REGISTRATION NUMBER: 33,215
REFERENCEJOCKET NUMBER: NES
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-333
TELEPHONE: (303) 793-333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 80111
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY:
STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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Colorado
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8400 B. Prentice Avenue, Suite
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
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                                                              US-08-433-124A-137
Query Match
Best Local Similarity
Matches 13; Conserv
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APPLICANT: STEPHE
                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
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FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                           FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                  REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX31.2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 11-JUNE-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ITLE OF INVENTION: NUCLEAR TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 03 MAY CLASSIFICATION: 43
                                                                                                         OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/964,6
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                           LENGTH:
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                                                                                                                                                               nucleic acid
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8400 E. Prentice Avenue, Suite
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GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                         (303)
                                                                                                                                     linear
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                                                                                                                                                 single
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     65.0%; Score 13; DB
100.0%; Pred. No. 55;
tive 0; Mismatches
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                                                                                                        All C's are 2'-F cytosine
                                                                             All U's are 2'-F uracil
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Pred. No.
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                                     DB 1; Length 31;
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        Gaps
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                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: STEPHE
                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/530
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,124
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: GOLD, LARRY
APPLICANT: SPECK, ULRICH
                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: NE TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET NUMBER OF SEQUENCES: 440
                                                                                                                                                                                                                          LENGTH: 31 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                             NAME: Barry J. Swanson REGISTRATION NUMBER: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 07/964,624 FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/976 FILING DATE: 21-NOVEMBER-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                                                                                            OTHER INFORMATION:
                                                                                                                                                                            OTHER INFORMATION:
                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                             Local
                                                                                                                                                                                                                                                                                                                              TELEPHONE:
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13
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                              6 ATCGATGCAGGG 18
                                                              Similarity 100.
13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Englewood: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8400 E.
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                                                                                                                                                                                                                                                                                                                (303)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WordPerfect 8.0
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30 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                               (303)
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                                                                                                                                                                                                                                                                                                              793-3433
                                                                                                                                                                                                                                                                                                                               793-3333
                                                         65.0%; Score 13; DB 3;
100.0%; Pred. No. 55;
tive 0; Mismatches
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                                                                                                                                                                              All C's are 2'-F cytosine
                                                                                                                                              All U's are 2'-F uracil
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RESULT 4 PCT-US96-06059-137/c

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US-08-433-126A-138/c
; Sequence 138, Application US/08433126A
; Patent No. 5688935
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                                                                           RESULT 5
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                                                                                                                                                                                   Matches
                                                                                                                                                                                                              Query Match
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                                                                                                                                                                                                 Best Local
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 03
FILING DATE: 03-MAY-15
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 03
FILING DATE: 03-MAY-15
                                                                                                                                                                                                                                                                                      FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                      FEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Diskett
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: STEPHENS, ANDREW APPLICANT: SCHNEIDER, DAN
                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 21-0C7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 10-JUN
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                                                                                                                                                                                                                                                                                                                                                   nucleic acid
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STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Swanson & Bratschun, L.L.C.
10 B. Prentice Avenue, Suite 200
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11-JUNE-1990
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ER: NEX31.2
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US-08-433-124A-138/c; Sequence 138, Application US/08433124A; Patent No. 5750342
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Best Local S
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PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
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CORRESPONDENCE ADDRESS:
ANDRESSEE: Swanson & Bratschun, L.L.C.
ANDRESSEE: Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOPTWARE: WordPerfect 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08,
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OTHER INFORMATION:
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PRIOR APPLICATION DATA:
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                                                  CORRESPONDENCE ADDRESS:
                                                                 TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: 241
                                                                                                                    APPLICANT:
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TYPE: nucleic acid
STRANDEDNESS: single
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Barry J. Swan REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 03 MAY 1995
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                               ADDRESSEE:
                                                                                                                                                                                                                                                                                     13 ATCGATGCAGGGG 1
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Englewood
                 E: Swanson & Bratschun, L.L.C. 8400 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCHNEIDER, DAN
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                                                                                                                    GOLD, LARRY
                                                                                                                                STEPHENS, ANDREW SCHNEIDER, DAN
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SYSTEM: MS-DOS
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                       Mismatches
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80111

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US-08-976-413A-138/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: STEPHENS, ANDREW
APPLICANT: GOLD, LARRY
APPLICANT: GOLD, LARRY
APPLICANT: SPECK, ULRICH
TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
NUMBER OF SEQUENCES: 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 21-OCTO
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APPLICATION NUMBER: 07/714,131
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                                                                                            COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                       COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM pc
OPERATING SYSTEM:
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CLASSIFICATION:
RRENT APPLICATION DATA: US
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                                                                             MEDIUM TYPE:
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                                                                                                                                                                         Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
                                                                             Diskette, 3 1/2 diskette, 1.44
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100.0%; Prr
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US/08/976,413A
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Pred. No
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RESULT 8
PCT-US96-06059-138/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,124
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                    SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
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OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: NUCLEI
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                 COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                       STREET: 8400 E.
CITY: Englewood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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FILING DATE: 11-JUNE-1990
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                                                                                       FILING DATE:
                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                              COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 38 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                            ADDRESSEE:
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                                                                                                                                                                                                                                              Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                 Application PC/TUS9606059
                                                                                                                                                                                                                                                                              8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                    STEPHENS, ANDREW SCHNEIDER, DAN
                                                                                                                                                                                                                                                                                                                                                                    GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                         Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-NOVEMBER-1997
                                                                                                                                                                               Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-OCTOBER-1992
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                                                                                                                                                                                                                                                                                                                                                       NUCLEIC ACID LIGANDS OF TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                                                                           241
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08/433,126
                                                                                                       PCT/US96/06059
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                                                                                                                                                                                    3 1/2 diskette, 1.44 MG
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PRIOR APPLICATION DATA:

03-MAY-1995

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                    CLASSIFICATION: 514
CCLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 07/536,428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-433-126A-59/c
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INFORMATION FOR SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ent No.
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OTHER INFORMATION:
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TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
FILING DATE: 21-OCTO
                                                                                                                                                                      SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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APPLICANT: SCHNEIDER, DAN
APPLICANT: GOLD, LARRY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/536,428
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                                                                                                                                         APPLICATION NUMBER: FILING DATE: 03 MA
                                                                                                                                                                                                    COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
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           FILING DATE: 11-JUNE-1990 IOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/08433126A
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                                                                                                                                                                                                                                                                                                                                  8400 E. Prentice Avenue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38 base pairs
                                                                                                                                                                                                                                                                                     USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (303) 793-3333
                                                                                                                                        03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-JUNE-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.0%; Score 13; DB 5; 100.0%; Pred. No. 55;
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07/964,624
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                                                                                                                                                       US/08/433,126A
                                                                                                                                                                                                                                     3 1/2 diskette, 1.44
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                                                                                                                                                                                                                                                                                                                                  Suite
                                                                                                                                                                                                                                                                                                                                    200
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RESULT 10
US-08-433-124A-59/c
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; OTHER INFORMATION:
US-08-433-126A-59
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Best Local Similarity
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NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/433,
FILING DATE: 03 MAY 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
OTHER INFORMATION:
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                            REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                               APPLICATION NUMBER: 07/90
FILING DATE: 21-OCTOBER:
ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
                                                                                                                                                                 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE IITLE OF INVENTION: TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 8400 E. Prentice Avenue, Suite 200 CITY: Englewood STATE: Colorado
                                                                                                                                                                                 APPLICATION NUMBER: 07/53
FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Barry J. Swanson REGISTRATION NUMBER: 3:
                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: WordPerfect 6.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
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               (303)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
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GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                    UMBER: US/08/433,124A
03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                          Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                 21-OCTOBER-1992
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                                                                                                                                                  07/964,624
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                                                                 NEX31.2
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Pred. No.
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US-08-976-413A-59/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    equence 59, Application US/08976413A atent No. 6127119
                                                                                                               TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                          SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: WordPerfect 8.0
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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PTLICANT: SPECK, ULRICH
TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
                                                                                                                                                                         NAME: Barry J. Swanson
REGISTRATION NUMBER: 33
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 11-JUN
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les 13; Conserv
                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 03-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
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OTHER INFORMATION: All C's are 2'-F cytosine
                              TOPOLOGY: linear
                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/976,413A
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                                                                                                                              (303)
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00 E. Prentice Avenue, Suite 200
                                                                                                                                            (303)
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                                                                                                                                                                                                                                                                                                                                         10-JUNE-1991
                                                                                                                                                                                                                                         UMBER: 07/964,624
21-OCTOBER-1992
                                                                                                                                                                                                                                                                                          11-JUNE-1990
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                                                                                                                             793-3433
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                                                                                                                                              793-3333
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                                                                                                                                                                                                                                                                                                         07/536,428
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RESULT 12
PCT-US96-06059-59/c
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PCT-US96-06059-59
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                                                                                                                                                       TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION UMBER: 07/536,4
FILING DATE: 11-UNBER: 07/536,4
FILING DATE: 11-UNDER: PRIOR APPLICATION UMBER: 07/536,4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM pc com
        PEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: WordPerfect
CURRENT APPLICATION DATA
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                                       FEATURE:
OTHER INFORMATION:
                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
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APPLICATION NUMBER:
FILING DATE: 21-OCTO
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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APPLICATION NUMBER: 08/433,124
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les 13; Conservative
                                                                                                                                                                                                                                     NAME: Barry J. Swanson REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US96/06059
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                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
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                                                                           TOPOLOGY: linear
                                                                                          STRANDEDNESS:
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                                                                                                       nucleic acid
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8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM pc compatible
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                                                                                         single
                                                                                                                                                                      793-3433
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                                            All C's are 2'-F cytosine
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                                                                                                                                                                                                                       NEX31.2
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Pred. No.
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ADDRESSEE:

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RESULT 14
US-09-005-069-91/c
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Matches
PATENT NO. 53247.

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYNDA
TITLE OF INVENTION: MOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
TITLE OF SECUENCES: 107
                                                                                                                                                      Sequence 91, Application US/09005069
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Best Local
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APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYNDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (303) 863-0223 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: CONNELL, GARY J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 26:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/630,822A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                  306 base pairs
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                                                                                                                                                                                                                                                                                            65.0%; Score 13; ilarity 100.0%; Pred. No. Conservative 0; Mismatc
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57;
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IENGTH: 306 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
TYPE: nucleic acid
TYPE: nucleic acid
TYPE: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
US-09-005-069-91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-09-171-156A-40/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 40, Application US/09171156A Patent No. 6368846 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/630,822
FILING DATE: 11-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: CONNELL, GARY J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 26
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                          ZIP: 80202

COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
COPTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/171,156A
FILING DATE: 04-Mar-1999
CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
NEWER COMMANDER: AST. 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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CLASSIFICATION:
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CITY: Denver
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS AND APPARATUS TO COLLECT SUCH PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Hunter, Shirley Wu
                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 GIGCATCGATGCA 62
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                                                                                                                                                                                                                                                                                        ADDRESSEE: SHERIDAN ROSS P.C. STREET: 1560 BROADWAY, SUITE 1200 CITY: DENVER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Colorado
                                                                                                                                                                                                                                                                          STATE: CO
NAME: Connell, Gary J.
REGISTRATION NUMBER: 32,020
                                                                                                                                                                                                                                                      COUNTRY: U.S.A.
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1700 Lincoln Street, Suite 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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k; Pred. No. 57;
0; Mismatches
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REFERENCE/DOCKET NUMBER: 2618-17-C4-PUS

TELECOMMUNICATION INFORMATION:
TELEPHONE: 303/863-9700
TELEPHONE: 303/863-9700
TELEPHONE: 303/863-9700
TELEPHONE: 303/863-9700
TELEPHONE: 305/863-0223
INFORMATION FOR SEQ ID NO: 40:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
SEQUENCE DESCRIPTION: SEQ ID NO: 40:
US-09-171-156A-40

Query Match
Best Local Similarity 100.0%; Pred. No. 57;
MATCHES 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
MATCHES 13; CONSERVATIVE 0; Mismatches 0; Indels 0; Gaps O;

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Result
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Maximum DB seq length: 500
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                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
  Query
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20
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                                                                                                                                                                                                             /cgn2_6/ptodata/1/pubpna/US09Ā PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09Ē PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09Ē PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10Ā PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10Ā PUBCOMB.seq:*
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cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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                                                                 SUMMARIES
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7_NEW_PUB.seq:*
JS_PUBCOMB.seq:*
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PUBCOMB.seq:*
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15	ű	13	15	15	13	13	15	15	13	13	13	13	13	13	DB
US-10-068-160-65	US-10-194-035-71	US-10-194-035-27	US-10-068-160-38	US-10-068-160-12	US-10-194-035-73	US-10-194-035-53	US-10-068-160-54	US-10-068-160-1	US-10-194-035-72	US-10-194-035-43	US-10-194-035-38	US-10-194-035-37	US-10-194-035-34	US-10-194-035-32	ID
Sequence 65, Appl	Sequence 71, Appl	Sequence 27, Appl	•	Sequence 12, Appl	Sequence 73, Appl	Sequence 53, Appl	Sequence 54, Appl	Sequence 1, Appli	Sequence 72, Appl	•	Sequence 38, Appl	Sequence 37, Appl	Sequence 34, Appl	nce 32,	Description

RESULT 2

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Sequence 294, App Sequence 294, App Sequence 294, App Sequence 294, App	000000000000000000000000000000000000000	2 2 9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	

ALIGNMENTS

US-10-194-035-32

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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEO ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 32
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
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                                                                                                                                                           ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 32, Application US/10194035
Publication No. US20030144229A1
GENERAL INFORMATION:
                                                                                             Query Match
Best Local &
                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLECTIDE AND
FILE REFERENCE: 4239-6317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLIMMAN, Dennis APPLICANT: ISHII, Ken
                                        1 GGTGCATCGATGCAGGGGGG 20
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US-10-194-035-34
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US-10-194-035-37
                                                                                                                                           ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-37
                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 34, Application US/10194035 Publication No. US20030144229A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 37, Application US/10194035 Publication No. US20030144229A1 GENERAL INFORMATION:
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Best Local (
                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: VERTHELYI, Daniela TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND FILE REPERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                           CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/176,115 PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH: 20
                                                                                                                                                                                                                                  ENGTH: 20
                                                                                     Local Similarity
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Local Similarity 100.0%;
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 GGTGCATCGATGCAGGGGGG 20
                                    GGTGCATCGATGCAGGGGGG
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Pred. No. 0.036;
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TITLE OF INVENTION: OLIGODEOXXNUCLEOTIDE AND IT
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
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LENGTH: 20
TYPE: DNA
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SEQ ID NO 43
LENGTH: 20
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Publication No. US20030144229A1
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial Sequence
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Application US/10194035

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Best Local
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APPLICANT: THE GOVERNMENT OF THE UNITED APPLICANT: SECRETARY OF THE DEPARTMENT
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LENGTH: 20
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SEQ ID NO 72
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Publication No.
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
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ORGANISM: Artificial Sequence
FEATURE:
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ORGANISM: Artificial Sequence
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Pred. No. 0.036;
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SOFTWARE: Patentin version 3.1
SEQ ID NO 54
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Oligonucleotide
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US-10-194-035-53
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 53
LENGTH: 19
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APPLICANT:
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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ORGANISM: Artificial Sequence
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                                                                                          Length 19;
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AND HUMAN SERVICES
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US-10-068-160-12
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US-10-194-035-73
                                                                                                                                                        US-10-068-160-12
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CURRENT APPLICATION NUMBER: US/10/194,035;
CURRENT FILING DATE: 2002-07-12;
PRIOR APPLICATION NUMBER: PCT/US01/01122;
PRIOR FILING DATE: 2001-07-19;
PRIOR APPLICATION NUMBER: US 60/176,115;
PRIOR FILING DATE: 2000-01-14;
NUMBER OF SEQ ID NOS: 119
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Best Local
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                                                                           Matches
                                                                                                             Query Match
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APPLICANT: ISHII, Ken
                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-61999
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                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                     TYPE: DNA
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ORGANISM: Artificial Sequence
                                                                                                                                                                          OTHER INFORMATION: Oligonucleotide
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                                                                                               Local Similarity
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                                                                           18;
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                                    TGCATCGATGCAGGGGGG 20
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18
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RESULT 12 US-10-068-160-38

RESULT 14 US-10-194-035-71 ; Sequence 71, A

Application US/10194035

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RESULT 13
US-10-194-035-27
; Sequence 27, Application US/101
; Publication No. US20030144229A1
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-38
                                                                                                                                       ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-27
                                                                                                                                                                                                                            SOFTWARE: Pa
SEQ ID NO 27
LENGTH: 17
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SEQ ID NO 38
LENGTH: 20
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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTMARE: PATCATON NUMBER: DATE: 2000-01-14
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Best Local Similarity
                                                                   Matches
                                                                                                      Query Match
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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                                                                                                                                                                            TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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                                                                                        Local
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                                                                                        Similarity
                                    GGTGCATCGATGCAGGG 17
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                                                                     Conservative
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Pred. No.
                                                                                        Score 17;
Pred. No.
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0.51;
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                                                                                                      Length 17
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Search completed: January 20, 2004, 20:51:02 Job time : 133.941 secs
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; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Oligonucleotide
US-10-068-160-65
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOPTWARE: Patentin version 3.1
SEQ ID NO 65
LENGTH: 20
TYPE: NUMBER NOT SERVER OF SERVER 
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Best Local Similarity
Matches 16; Conserv
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SEQ ID NO 71
LENGTH: 16
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Best Local (
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APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
CRICK APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
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APPLICANT: KLINMAN, Dennis
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ORGANISM: Artificial Sequence
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Result
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                 a a
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Gapop 60.0 , Gapext 60.0
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ALIGNMENTS

	JOURNAL COMMENT	TITLE	AUTHORS	REPERENCE	SOURCE ORGANISM	VERSION KEYWORDS	ACCESSION	RESULT 1 BJ193666 LOCUS DEFINITION	
Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Japan Tel: 81-559-81-6856 Fax: 81-559-81-6855 Email: tshini@genes.nig.ac.jp	plants genome Unpublished Contact: Tadasu Shin-i	,M. Comparison of the moss Physcomitrella patens genome with flowering	Fujita, T., Shin-i, T., Seki, M., Kamiya, A., Uchiyama, I., Nishiyama, T., Carninci, P., Hayashizaki, Y., Shinozaki, K., Kohara, Y. and Hasebe	<pre>Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Bryopsida; Funariidae; Funariidee; Funariiaceae; Physcomitrella. 1 (hasea 1 to 177)</pre>	Physcomitrella patens subsp. patens Physcomitrella patens subsp. patens	BJ193666.1 GI:18361600 EST.	caulonemata and rhizoid-like protonemata Physcomitrella patens subsp. patens cDNA clone pphn19j13 5', mRNA sequence. BJ193666	BJ193666 normalized full length cDNA library, chloronemata,	

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Protonemata were blended by the POLYTRON, and then cultivated on the BCD medium containing lum NAA (naphthalene acetic acid) for 8 to 11 days under the continuous light.
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EST672 almond cDNA library Prunus dulcis cDNA 5',
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BQ703645.1 GI:30271226
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15; Conserv
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71ang,Y.Q. and Ma,R.C.
Generation and Analysis of 814 Expressed Sequence Tags from Almond
(Prunus dulcis) Pistils
Unpublished (2002)
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Jiang YQ, Ma RC
Lab of Plant Functional Genomics
Lab of Plant Functional Genomics
Beijing Agro-biotechnology Research Center
Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
Tel: 8610 5150 3831
Fax: 8610 5150 3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
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/tissue type="pistils"
/clone lib="almond cDNA library"
/clone lib="almond cDNA library"
/clone lib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site 1: Sal I; Site 2:
/note T; Total RNAs were isolated from pistils using Trizol
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit (CAT
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rhizoid-like protonemata"
/clone_lib="normalized full length cDNA library,
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/mol type="mRNA"
/sub_species="patens"
/db xref="taxon:145481"
/clone="pphn19j13"
                                                                                                                                                                                                                                                organism="Prunus dulcis"
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'db_xref="taxon:3755"
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
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Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
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Generation and Analysis of Expressed Sequence Tags from Almond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seq primer POLYA=Yes.
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Insert Length: 211 Std Error: 0.00
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8610 5150 3980
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Not I; Total RNAs were isolated from pistlie using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit (AT
No.19643-014, Invitrogen, USA). The phage library was
converted through mass excision to a plasmid library in
the vector pZL1. The plasmid library was plated on 15-cm
LB agar plates with 100ug/mL ampicillin. Individual clones
were picked at random and propagated. The 5'ends of the
were picked at random and propagated. The 5'ends of the
cDNA clones were sequenced on ABI Prism377 DNA sequencer."
81 a 29 c 39 g 62 t
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/clone_lib="almond cDNA library"
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/db_xref="taxon:3755"
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Oryza sativa (indica cultivar-group)
Cryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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15; Conserv
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                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magmoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 113)

1 (bases 1 to 113)

Alonso, J.M., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab Alonso, J.M., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab Alonso, J.M., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab Alonso, J.M., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Gadrinab C., Leisse T. J., Barajas, P., Chen, H., Cheuk, R., Chen, H., Chen, H.,
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Insert Length: 374 Std Error: 0.00
Seq primer: CGCCAGGGGTTTCCCAGTCACGAC.
Location/Qualifiers
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Conso,J.M., Leisse,T.J., Barajas,P., Chen,H., Che
C., Jeske,A., Karnes,M., Kim,C.J., Parker,H., Pre
Zinmerman,J. and Boker,J.R.
Sequence-Indexed Library of Insertion Mutations
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/dev stage="35 day-old seedlings"
/clone_lib="Drought stress (leaf)"
/clone_Tib="Drought stress (leaf)"
/note="Organ: Leaf; Vector: T7T3Pac; ESTs from normalized
leaf cDNA Library from drought stressed seedlings "
113 c 82 g 73 t
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/clone="NL34_G07"
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(mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63 GTGCATCGATGCAG 50
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Ludwig Institute for Cancer Research
Ludwig Institute for Cancer Research
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Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
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This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/soripts/gethtml2.pl?tl=RCl&t2=RCl-UT0012-020800-011-a02_1&t3=2000-08-02&t4=1)
                                                                                                                                                                                                                                                                                                        proc. Natl. A
                                                                                                                                                                                                                                                                                                                                                   Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                      Email: asimpson@ludwig.org.br
                                                                                                           Fax: +55-11-2707001
                                                                                                                                    Tel: +55-11-2704922
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/clone lib="Arabidopsis thaliana TDNA insertion lines"
/clone lib="Arabidopsis thaliana lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 23 c 20 g 31 t
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|mol_type="genomic DNA"
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Pred. No.
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2.1e+03;
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E At2g42880.
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Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona; Phlebobranchia; Cionidae; Ciona.

1 (bases 1 to 249)
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Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AV993468 Nori Satoh unpublished cDNA library, larva intestinalis cDNA clone cilv25g13 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                         Email: gatoh@ascidian.zool.kyoto-u.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Nori Satch
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Expressed genes in Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Satoh, N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AV993468.1 GI:19484802
                                                                                                                                                                                                                                                                                                                                                       Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 70.0%; Score 14;
Similarity 100.0%; Pred. No.
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                                                                                                                                                                                        /organism="Ciona intestinalis"
/mol_type="mRNA"
/db_xref="taxon:7719"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Satou, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mol_type="mRNA"
db_xref="taxon:9606"
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                                                                                                                                                                                                                                                    clone="cilv25g13"
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ne_lib="UT0012"
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                                                           102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kohara, Y. and Shin-i, T.
                                                                                                                  0;
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; Pred. No. 2.1e+(
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             EST; expressed sequence tag
                                           Homo sapiens mRNA; EST DKFZp686B17235_r1
                                                                              09-MAY-2003
09-MAY-2003
                                                                                                                            BX483168.1
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                                                                                                                                                                                                                                                                                                                                         14;
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Stanford University
855 California Ave, Palo Alto, CA 94304, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Maize genomic sequences 
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tel: 650 723 2227
Fax: 650 725 8221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Walbot V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plate: 1006096 row: 29
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                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                      TGCATCGATGCAGG 16
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                                                                                                                                                                                            standard;
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                                                                            (Rel.
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                /note=Torgan: leaf; Vector: RescueMu (engineered from pBlueScript backbone); Site 1: BamHI; Site 2: BgIII; RescueMu is a 4.9 kb, modified maize Mu transposon designed to allow plasmid rescue from total genomic DNA. Mu elements insert preferentially into transcription units. For more information on RescueMu, go to the web site 'www.zmdb.iastate.edu' and follow the links for 'RescueMu.' Grid G was grown at Stanford in 2000. DNA was extracted from leaf punches, double digested using BamHI and BgIII, and ligated to form circular plasmids. DH108 cells were transformed and then screened on LB plates with amploillin."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="genomic DNA"
/cultivar="mixed background W23/A188/B73"
/db_xref="taxon:4577"
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Last updated, Version 1)
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ches 0;
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                                                (from clone DKFZp686B17235)
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consortium of the German Genome Project.
No s1 sequence available.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
sequenced by GBF (National Research Centre for Biotechnology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This clone (DKFZp686B17235) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERWANY; Email: clone@rzpd.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (07-MAY-2003) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Han M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bloecker
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Eukaryota; Metazoa;
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                                                                                                                                                                                                                                                                                                                                           BM856929 292 bp mRNA linear EST 06-MAR-2002 K-EST0141064 S21SNU520 Homo sapiens cDNA clone S21SNU520-76-D03 5',
             Email: yongsung@mail.kribb.re.kr
Plate: 76 row: D column: 03
                                                                                                                                                                                                                         Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                       Homo sapiens
                                                                       Korea Research Institute of Bioscience & Biotechnology 52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
                                                                                                     Genome Research Center
                                                                                                                    Contact: Kim YS
                                                                                                                                  Unpublished
                                                                                                                                                21C Frontier Korean
                                                                                                                                                                              Oh, K.J
                                                                                                                                                                                          Kim, N.S.,
                                                                                                                                                                                                                                                                                                  BM856929.1 GI:19213328
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                                           Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                   domo sapiens (human)
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m, N.S., Hahn, Y.,
                                                         Eoeun-dong Yuseong-gu,
l: +82-42-860-4470
                                                                                                                                                                                                                                                                                                                              sequence.
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quality sequence
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                                                                                                                                                                            ., Cheong, J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="DKPZp686B17235"
/clone lib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH10B; sites SfiIA + SfiIB"
/dev stage="adult"
/tissue_type="cDNA-collection"
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/organism="Homo sapiens"
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                                                                                                                                                                         ,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M. Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14; DB 2; L
Pred. No. 2.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74
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                                                                                                                                                Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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RESULT 11
BW097424/c
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TITLE
JOURNAL
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Best Local
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Ciona intestinalis
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                                                                                                                                                                                                                                                                                                                                                                                               Sakyo-ku, Kyoto, Ky
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 306)
Satou, Y., Shin-i, T., Kohara, Y. and Satoh, N.
Expressed genes in Ciona intestinalis (2002c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BW097424 Nori Satoh unpublished cDNA library, tailbud intestinalis cDNA clone rcitb058009 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Nori Satoh
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
Phlebobranchia; Cionidae; Ciona.
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                                                                                                                                                                                                                                                                                                                                                          Email: satoh@ascidian.zool.kyoto-u.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kyoto University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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/clone_lib="521SNU520" |
/clone_lib="521SNU520" |
/note="forgan: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
/note="forgan: stomach; Vector: pt_1; Site_1: EcoRI;
/note="forgan: stomach; Vector: pTZ18RP1; Site_1: EcoRI;

/tissue_type="whole animal"
/dev stage="tailbud embryo"
/clone lib="Nori Satoh unpublished
embryo"
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cell_line="SNU-520"
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                                                                                                                                                                               mol_type="mRNA"
/db_xref="taxon:7719"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'mol_type="mRNA"
'db_xref="taxon:9606"
                                                                                                                                             clone="rcitb058009"
                                                                                                                                                                                                                                                      organism="Ciona intestinalis"
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2.1e+03;
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                                         cDNA library, tailbud
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RESULT 13
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DEFINITION
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Best Local S
Matches 14
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MEDLINE
                                                                                                                                              Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                    source
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BH019162 352 bp DNA linear GSS 25-MAY-2 L242k.d_HygT3.1 Leishmania major Friedlin Cosmid Genomic Library
                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -min
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, USA Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST cluster assembly Mamm. Genome 13 (8),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus. 1 (bases 1 to 329)
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EST.
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Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                     FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sus scrofe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (pig)
                                                                                                                                                                                                                                                                                                                                                                                                               PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Smith TPL
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                                                                                                                                              Similarity
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                                                                                                                                 70.0%; ilarity 100.0%; Conservative
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                                                                                                                                                                                                                                                               /organism="Sus scrofa"
/mol type="mRNA"
/db_xref="taxon:9823"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                         /clone lib="MARC 1PIG"
/notee="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI; Library made from pooled tissue from day 11, 13, 15, 20, and 30 embryos."
                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
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100.0%; Pr
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                                                                                                                                  Score 14; DB; Pred. No. 2.0
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Pred.
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                                                                                                                                              DB 9; Le
. 2.1e+03;
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2.1e+03;
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                                                                                                                                                             Length 329;
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Sultana,R., Quackenbush
               GSS 25-MAY-2001
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                                                                                                                                                                                                                                                                                         360 bp mRNA linear EST 04-FE mml4e06.rl Stratagene mouse diaphragm (#937303) Mus musculus clone IMAGE.521506 5' similar to gb:X03208 Mouse group 1 gene (MOUSE); mENA sequence.
AA066330
AA066330.1 GI:1563400
                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 360)

Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T. Geisel,S., Kucaba,T., Lacy,M., Le,M., Marrin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leishmania major genomic clone L242k, genomic survey sequence.
BH019162
BH019162.1 GI:14197868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seattle Biomedical Research Institute
4 Nickerson Street, Seatttle, WA 98109-1651, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Myler, P.J., Vogt, C., Cawthra, J., Klacking, M., Marty, A., Mack, J., Munden, H., Nguyen, D., Robertson, L., Sisk, E., Fazelinia, G., Aggarwal, G., Nelson, S., Seyler, A., Worthey, E. and Stuart, K. Leishmania major Friedlin Cosmid End Sequences
The WashU-HHMI Mouse EST Project Unpublished
                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seq primer: HygT3
Class: cosmid ends.
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Eukaryota; Euglenozoa;
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Fax: 206 284-0313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
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                                            Waterston, R.
                                                                                                                                                                                                                                                   Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: mylerpj@sbri.org
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Vector: cLHYG; Site_1: BamHI; Genomic DNA from Leishmania major Friedlin was partially digested with Sau3AI, size selected, and ligated with BamHI-digested cLHYG cosmid vector DNA. 9216 clones were picked and arrayed. Library construction is described in Ivens et al., Genomics Research, 8:135-145 (1998). The cLHYG vector (Acc. No. CVUS9231) is described in Ryan et al, Gene, 131:145-150 (1993)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="Leishmania major Friedlin Cosmid Genomic
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/clone="L242k"
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/strain="Friedlin"
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100.0%; Pr
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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OSTF156H5_1 AD-wrmcDNA Caenorhabditis elegans cDNA, CB391692
CB391692.1 GI:30733402
EST.
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This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Email: Marc Vidal@dfci.harvard.edu
Email: Marc Vidal@dfci.harvard.edu
Sequence tag of Gateway entry clones. The primers used were
designed on the predicted protein encoding ORF. C. elegans C
cloning project : Contact david_hill@dfci.harvard.edu or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 TCGATGCAGGGGG 20
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Location/Qualifiers
                                                                                                Marc Vidal Laboratory
Dana Farber Cancer Institute
1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA
Tel: 617 632 5180
Fax: 617 632 5739
                                                                                                                                                                                                                       Nat. Genet., (20
Contact: Vidal M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Caenorhabditis elegans
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea
; Rhabditidae; Peloderinae; Caenorhabditis.
1 (bases 1 to 363)
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
Mashington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                   expression
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/note="Organ: diaphragm; Vector: pBluescript SK-; Site_1:
BcoRI; Site_2: xhol; Cloned unidirectionally from mRNA
prepared from diaphragm muscle. Primer: Oligo dT. Average
insert size: 1.5 kb. Uni-ZAP XR Vector; ~5' adaptor
sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5'
CTCGAGTTTTTTTTTTTTTTTTTT" 3'"

59 c 120 g 84 t
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/dev_stage="adult"
/lab_host="SOLR (kanamycin resistant)"
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_xref="taxon:10090"
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175 ATCGATGCAGGGGG 188
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                             6 ATCGATGCAGGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                          marc_vidal@dfci.harvard.edu
                                                                                                                                                                                                                                                                                                                                                                                             POLYA=No.
                                                                            Similarity
                                                                                                                                          116
                                                          Conservative
                                                                                                                                        þ
                                                                                                                                   /note="The AD-wrmcDNA library was generated with poly(A)+ RNA isolated from both hermaphrodite and male N2 worms of all lases, embryos, adults and dauers and the subsequent generation of CDNAs by poly(A) priming. The cDNAs were cloned into pPC86"

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                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                    clone_lib="AD-wrmcDNA"
                                                                                                                                                                                                                                                /sex="Hermaphrodite and male"
/tissue_type="whole animal"
/dev_stage="mixed stage"
                                                                                                                                                                                                                                                                                                  db_xref="taxon:6239"
                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/strain="N2"
                                                                                                                                                                                                                                                                                                                                              organism="Caenorhabditis elegans"
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2.1e+03;
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Gapop 10.0 , Gapext 1.0
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Patent: WO 0151500-A 37 19-JUL-2001;
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 34 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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538 from Patent WO0193902.
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/mol type="genomic DNA"
/db xref="taxon:32630"
/note="Synthetic HDR"
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Mond, J.J., Prince, G. and Klinman, D.M. Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE A
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonuclectide"
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Sequence 61 from AX465393
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Vaccine against RSV
Patent: W0 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
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RESULT 15
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Search completed: January 20, 2004, 17:14:58 Job time: 706.471 secs
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Sequence 90 from Patent WO0211761.
AX465422
AX465422.1 GI:21899785
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Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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/note="Synthetic oligonucleotide"
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                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*

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Copyright (c) 1993 - 2004 Compugen Ltd.
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ALIGNMENTS

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RESULT 1
                                                                                                            AAS09582;
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                                                        26-SEP-2001 (first entry)
Immunoreactive CpG sequence-containing oligonucleotide #32
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; interleukin-6 production; therapeutic; allergy; astima; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic crinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

12-JAN-2001; 2001WO-US01122. Synthetic. 14-JAN-2000; 2000US-0176115. 19-JUL-2001. WO200151500-A1

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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RESULT 2
AAS09584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid athericis and experience in ifections including Pranciscial activities and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell-activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleotides comprising multiple CpG sequences, where one of the Cps sequences is different from another of the multiple CpG sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                symptoms resulting from exposure multiple CpG sequences -
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                                                                                                                                                                                               therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
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                 19-JUL-2001
                                                                                                                                                                                                                                                 CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production;
                                                                                                                                                                                                                                                                                                                                                                                                                        AAS09584 standard; DNA; 20 BP
                                                     WO200151500-A1
                                                                                       Synthetic
                                                                                                                                            schistosomiasis; tuberculosis; acquired
                                                                                                                                                           hepatitis; human immunodeficiency virus; HIV; malaria; Francis
lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
                                                                                                                                                                                                                                                                                                              Immunoreactive CpG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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Pred. No. 2;
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S
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CC mediated immune response, involving non-B cell activation, interferon cell activated immune response, involving non-B cell activation, interferon cell activated immune response, involving non-B cell activation, interferon cell activation, antibody and interleukin-6 production in a host, for cell activation, antibody and interleukin-6 production in a host, for cell activating, preventing or ameliorating an allergic reaction, e.g. asthma, compared to the control of the control of a manual cancer, a disease associated with the immune cell system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines and other atopic conditions, for improving the efficacy virus (HIV) and cerythematosus and autoimmune system deficiencies, e.g. lupus capainst hepatitis A, B and C, human immundeficiency, virus (HIV) and cerythematosus and autoimmune diseases surhumatoid arthritis and constitutions infections including Francisella, schietosomiasis, infections including Francisella, schietosomiasis, infections including Francisella, schietosomiasis, completoms resulting from exposure of bio-warfare agent, including Ebola, including Eb
                                                     Matches
                                                                         Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 5; Page 32; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    prevent an allergic reaction, car symptoms resulting from exposure
                                                                                                                                                 Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             multiple CpG sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-JAN-2000; 2000US-0176115
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                                                     20;
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                                                                            Similarity
     GGTGCATCGATGCAGGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ishii K,
                                                                                                                                                   B₽;
                                                                                                                                                                                                    Listeria.
                                                     Conservative
                                                                                                                                                   3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              represent oligodeoxynucleotides
                                                                            100.0%;
                                                                                                                                                   3 C;
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                                                                            Score 20;
Pred. No.
                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ncer, an autoimmune disorder and to bio-warfare agents, comprise
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                                                                                                     B
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e of the CpG
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The or R

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26-SEP-2001
                                        AAS09587 standard; DNA; 20
                     AAS09587
(first entry)
                                                                                              20
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; [mmunoreactive Ebola; Anthrax; Listeria; ss g S sequence-containing oligonucleotide #37

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC cell activation, antibody and interleukin-6 production in a host, for CC treating, preventing or ameliorating an allergic reaction, e.g. asthma, CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC cancer, e.g. autoimmune disorder or an immune system deficiency, infection CC or a symptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or CC ameliorating allergic reactions, including eczema, allergic rhinitis or CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies CC and other atopic conditions, for improving the efficacy of vaccines (against hepatitis A, B and C, human immunodeficiency virus (HIV) and CC malaria, for treating immune system deficiency virus (HIV) and CC multiple sclerosis, infections including Francisella, schistosomiasis, CC tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and CC symptoms resulting from exposure of bio-warfare agent, including Ebola, CC Anthrax and Listeria.
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Best Local
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; interpeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhintii; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
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                                                                                                                                                                                                                                                                                                  AAS09588 standard; DNA;
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                                                                                                                                                            Immunoreactive CpG sequence-containing oligonucleotide #38
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Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania ar symptoms resulting from exposure of bio-warfare agent, including Ebola
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CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

26-SEP-2001

(first entry)

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RESULT 6
AAS09622
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Best Local
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                                                                            Matches
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schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                         Sequence 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Leishmania;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001
                                                                                                 Local
                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                 Similarity
                                       GGTGCATCGATGCAGGGGGG '20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ishii K,
                                                                                                                                                         BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence-containing oligonucleotide
                                                                                                 100.0%;
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                                                                              0
  20
                                                                                                 Score 20;
Pred. No.
                                                                              Mismatches
                                                                                                                      DB 22;
                                                                              0;
                                                                                                                    Length 20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                          infection human. The
                                                                              Gaps
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AAC80612 standard; DNA;

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ΒP

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AAC80612

XX AAC8

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                                                                                                                           CC (AACGOS81-C807723). The oligonucleotide are at least 10 bases long CC (AACGOS81-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG morif is unmethylated, and the CC oligonucleotide optionally have phosphorothioate linkages which make CC oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides of the CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC ettle on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural CC ettle, which metaling preventing or ameliorating an allergic reaction CC ettle, cells. A cell-mediated or humoral response can then occur by CC activation of T-or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC oligonucleotide is administered either alone or in combination with an CC unticaria, food allergies and other atopic conditions, and the infections which may be treated include eczema, allergic rhinitis, hayfever, CC unticaria, food allergies and other atopic conditions and CC orfore to the such as tuberculosis. AIDS. leishmania and CC orfore to the conditions and the process and the conditions and conditi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            allergies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-006880/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klinman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenic
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                           schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus,
                                                                                                       protozoal infections such as tuberculosis, AIDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention relates to novel immunogenic CpG oligodeoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oligonucleotides useful for the prevention and treatment of gies, cancer, and autoimmune disorders and for ameliorating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KLINMAN
ISHII K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 29; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    resulting from exposure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       īshii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CpG oligodeoxynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry
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multiple
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to a bio-warfare agent
sclerosis),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO:32
                                                                                                               leishmania and
associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protozoal;
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ពេលពេលពេលពេល
                                                                                                              agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                              The present sequence of the invention.
                                                                                                                                                                                                              immune system deficiency, and symptoms resulting from exposure to agent of biological warfare. An immunogenic CpG oligonucleotide, e alone or in combination with an anti-cancer agent, is useful for t
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Score
Pred.
                                                           3 T;
     NO;
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                                                            other;
                     DB 22;
                     Length
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AAC80614
                                                                                                                                                 Query Match
Best Local S
Matches 20
                                                           AAC80614 standard; DNA; 20
Immunogenic
                   14-FEB-2001
                                                                                                                              1 GGTGCATCGATGCAGGGGG
                                                                                                                                                  20;
                                                                                                                                                          Similarity
                                                                                                            GGTGCATCGATGCAGGGGG
CpG oligodeoxynucleotide, SEQ ID NO:34.
                                                                                                                                                 Conservative
                   (first entry
                                                                                                                                                             100.0%;
                                                           ВP
                                                                                                                                                 0
                                                                                                           20
                                                                                                                              20
                                                                                                                                                  Mismatches
                                                                                                                                                  <u>,,</u>
                                                                                                                                                  Indels
                                                                                                                                                  0
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CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; tresponse; tresponse; induction; immune response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; antiasthmatic; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. antimicrobial;

Synthetic

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/)) KLINMAN D.) ISHII K.) VERTHELYI D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -

Claim 4; Page 29; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an comprising an oligonucleotide of 6

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RESULT 9
AAC80617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immunegenic CpG oligonucleotide is administered either alone or in combination with an CC anti-allergenic agent or anti-infectious agent. The allergic conditions CC which may be treated include eczema, allergic rhinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fungal and CC grotozoal infections such as tuberculosis, AlDS, leishmania and CC schistosomiasis. Immune response induction may also be used in the CC treatment of an autoimmune disorder (e.g., lupus erythematosus, cCC immune system deficiency, and symptoms resulting from exposure to an CC agent of biological warfare. An immunogenic CpG oligonucleotide, either CC alone or in combination with an anti-cancer agent, is useful for treating CC solid tumour cancer. The induction of an immune response is used in CC antisense therapy and to improve the efficacy of a vaccine. The CC oligonucleotide is preferably administered to lymphocytes avvivo, CC producing activated lymphocytes which are then administered to the host. CC of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those
                                                                                                                                                                                                                                                                                                                                                          parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiantcrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; natural killer cell; NK cell activation; ecll response; antibody production; immune response induction; b-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleoti
12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                     WO200061151-A2
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                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
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99US-0128898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protozoal;
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유 S

RESULT 10 AAC80618

AAC80618

standard; DNA; 20

ΒP

문 S

Matches Query Match Best Local

20;

Conservative

0;

GGTGCATCGATGCAGGGGGG 20 GGTGCATCGATGCAGGGGG 20

Similarity

100.0%; 100.0%;

Score 20; Pred. No. Mismatches

DB 22; ٥,

Length 20;

0;

Gaps

0

14-FEB-2001 AAC80618;

(first entry)

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protozoal infections such as tuberculosis, AIDS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                     acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic conditions, and the infectious which may be treated include viral, bacterial, fungal and infections which may be treated include viral, bacterial, fungal and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the
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Sequence 20 BP; 3 A;
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(ISHI/) ISHII K.
(VERT/) VERTHELYI D.
                                                     invention.
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  3 C; 11 G; 3 T; 0 other;
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Immunogenic
  CpG oligodeoxynucleotide, SEQ ID NO:38.
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immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. CpG oligodeoxymucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; astima; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. VERTHELYI D.

Klinman D, Ishii K, Verthelyi

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -

Claim 4; Page 30; 46pp; English.

CC oligonuclectides optionally have phosphorothicate linkages which make coligonuclectide delivery complex comprising an oligonucleotide of the comprising an oligonucleotide of the clivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotides of comprising the oligonucleotide delivery complex. The oligonucleotides of comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence symbol of the sequence of the sequence of the sequence symbol of the sequence of the sequence of the sequence of the sequence symbol of the sequence The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the antisense therapy and to improve the efficacy of a vaccine. oligonucleotide is preferably administered to lymphocytes eproducing activated lymphocytes which are then administered solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The administered to the host

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Pred. No.
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CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell-mediated immune response; production; multing production; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa. parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; antiasthmatic; Synthetic. immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. protozoal;

19-OCT-2000.

12-APR-2000; 2000WO-US09839

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. (VERT/) VERTHELYI D.

WPI; 2001-006880/01

Klinman D,

Ishii K,

Verthelyi D;

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating resulting from exposure 6 a bio-warfare agent

Claim 4; Page 30; 46pp; English.

CC (AAC80581-C80723). The oligonuclectide are at least 10 bases long CC (AAC80581-C80723). The oligonuclectide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or CC oligonuclectides optionally have phosphorothioate linkages which make CC oligonuclectide optionally have phosphorothioate linkages which make CC oligonuclectide delivery complex comprising an oligonuclectide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonuclectide delivery complex. The oligonuclectides CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonuclectides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral cof the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonuclectide

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RESULT 12
AAC80652
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THE PROPERTY OF A PRINCIPAL PRINCIPAL PROPERTY OF A PR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa parasitic; tuberculosis; AIDS; antique disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
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                              Klinman D,
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VERTHELYI D.
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Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
Claim 4; Page 35; 46pp; English.
                                                                                                                                                                                                                                                                WPI; 2001-006880/01.
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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural cc killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cc (preferably asthma), or an infection, where an immunogenic CpG anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, curicaria, food allergies and other atopic conditions, and the creatment of an autoimmune disorder (e.g., lupus erythematosus, creatment of an autoimmune disorder (e.g., lupus erythematosus, creatment of solid tenory, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either calone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in cc antisense therapy and to improve the efficacy of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, cof the invention. invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention relates to novel immunogenic CpG oligodeoxynucleotides C80581-C80723). The oligonucleotide are at least 10 bases long BP; 3 A; з С; 11 G; 3 T; 0 other;

Sequence 20

밁 Ś Matches Query Match Best Local \vdash 20; Similarity GGTGCATCGATGCAGGGGGG 20 Conservative 100.0%; 100.0%; 0; Score 20; Pred. No. 20 Mismatches Ŋ 멂 22; 0 Length 20; Indels 0 0

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RESULT 13
ABK46460
ABK46460
                                     ABK46460 standard; DNA;
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                                     ВP
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Immunostimulatory unmethylated CpG oligodideoxynucleotide #50.

05-JUN-2002

(first entry)

Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; unmethylated CpG; oligdideoxynucleotide; ODN; virucide; dysplasia; vaccine;

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RESULT 14
ABK46462
ID ABK46
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Matches
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                                                                                                                                                                            unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine
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01-SEP-2000; 2000US-229307P.
                         10-AUG-2000;
01-SEP-2000;
                                                                  09-AUG-2001; 2001WO-US41633
                                                                                                14-FEB-2002
                                                                                                                         WO200211761-A2
                                                                                                                                                                                                                                                Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
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(JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
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                         2000US-224011P.
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                                                                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unmethylated CpG; oligdideoxymucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease.
                                                                                                        Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
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                                                    Claim 4; Page 8; 30pp; English.
                                                                                                                                                                                                                            WPI; 2002-227118/28
                                                                                                                                                                                                                                                                                Mond JJ,
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                                                                                                                                                                                                                                                                             Prince G,
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2000US-229307P.
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The invention describes a vaccine comprising one or more epitopes of a

Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond) oligodideoxymucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory synoytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;

Query Match
100.0%; Score 20; DB 24; Length 20;
Best Local Similarity 100.0%; Pred. No. 2;
Matches 20; Conservative 0; Mismatches 0; Indels <u>,</u> Gaps 0;

Search completed: January 20, 2004, 17:31:47 Job time : 124.706 secs

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Result
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Maximum DB seq length: 200000000
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20
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/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
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cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
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US-10-194-035-37

US-10-194-035-37

US-10-194-035-43

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US-10-068-160-54

US-10-068-160-54

US-10-068-160-54

US-10-194-035-33

US-10-194-035-33

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Sequence 32, Appl
Sequence 34, Appl
Sequence 38, Appl
Sequence 38, Appl
Sequence 43, Appl
Sequence 72, Appl
Sequence 1, Appl
Sequence 54, Appl
Sequence 53, Appl
Sequence 67, Appl
Sequence 61, Appl
Sequence 62, Appl
Sequence 62, Appl
Sequence 61, Appl
Sequence 610, Appl
Sequence 100, Appl
Sequence 101, Appl
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US-10-194-035-32

Sequence 32, Applica Publication No. US20 GENERAL INFORMATION:

Application US/10194035

US20030144229A1

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

BY THE

KLINMAN, Dennis

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ALIGNMENTS

FRIOR APPLICATION NUMBER: US 60/176,115

PRIOR FILING DATE: 2000-01-14

NUMBER OF SEQ ID NOS: 119

SEQ ID NO 32

LENGTH: 20

TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-32 밁 Ś Matches Query Match Best Local (APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: CLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19 APPLICANT: 1 GGTGCATCGATGCAGGGGGG 20 20; Similarity GGTGCATCGATGCAGGGGG ISHII, Conservative 100.0%; 0; Score 20; Pred. No. 20 Mismatches DB 13; STI 0, USE TO INDUCE AN IMMUNE RESPONSE Length 20 Indels 0, Gaps 0

RESULT 2

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LENGTH: 20
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                                                                        Matches
                                                                                       Query Match
Best Local Similarity
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOPTWARE: Patentin Ver. 2.1
EQ ID NO 37
                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver: 2.1
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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Local Similarity 100.0%;
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SEQ ID NO 43
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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SEQ ID NO 38
LENGTH: 20
TYPE: DNA
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Best Local :
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TITLE OF INVENTION: OLIGODEXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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100.0%; Pred. No. 2.:
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FILE REPERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                                          Query Match
Best Local Similarity
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Publication No.
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial Sequence
FEATURE:
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 53
LENGTH: 19
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LENGTH: 20
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Publication No.
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TITLE OF INVENTION: OLIGODEXXNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
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PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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US-10-194-035-40
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NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 40
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Best Local 9
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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TITLE OF INVENTION: OLIGODEXXNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR PILING DATE: 2001-07-19
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CURRENT FILING DATE: 2002-07-12
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TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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ENGTH: 19
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Best Local S
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SEQ ID NO 81
LENGTH: 20
TYPE: DNA
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SEQ ID NO 82
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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PRIOR FILING DATE: 2000-01-14
                                                                                                                                          LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR PILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN 
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US-10-194-035-101
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Publication No. US20030144229A1
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Matches 19; Conserv
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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95.0%; Pred. No. 13;
tive 0; Mismatches
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US-10-194-035-100

TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA

Best Local Similarity

92.0%;

Score 18.4; Pred. No. 13;

DB 13;

Length 20;

Query Match

NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 100
LENGTH: 20
Type:

CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER: CONTROL DATE: 2000-01-14

Search completed: January 20, 2004, 17:24:35 Job time: 132.353 secs

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis

BY THE

APPLICANT: VERTHELYI, Daniela TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REFERENCE: 4239-63317

Publication No.

Application US/10194035

US20030144229A1

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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description

fruit fly

Sequence Sequence

Sequence Sequence

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Minimum DB
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STS 28-FEB-1995 site.

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the number of results predicted by chance to have RESULT 1
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KEYWORDS Result No. REFERENCE SOURCE ORGANISM Score G01127 376
fruit fly STS Dm1823 clone D
G01127
G01127.1 GI:684531
STS; STS sequence; primer; s
Drosophila melanogaster (fru
Drosophila melanogaster Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila. Drosophila STS (bases 1 to Query Match Length 멂 primer; sequence aster (fruit fly) AX352021 AX352040 AX352112 AX351852 AX351854 AX351724 AX351766 AX351785 AX104390 AX104505 AX105160 AX105160 AX342397 AX342424 AX351738 AX351738 AX351825 AX351825 AX351825 AX351825 AX355250 AX455570 AX351851 AX351853 AX351876 AX351901 AX352136 AX355091 AX355249 AR154698 AR213824 븅 ALIGNMENTS SUMMARIES 376 bp ne DS02256 DNA

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                                                                                                   Immunomodulatory oligonucleotides
Patent: US 6008200-A 20 28-DEC-1999;
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PCR Profile:
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Primer B: CATAGGGAGATGGATTCG
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Krieg,A.M., Kline,J., Klinman,D. and Steinberg,A.D.
Immunostimulatory nucleic acid molecules
Patent: US 6207646-A 30 27-WAR-2001;
Location/Qualifiers
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Sequence 30 from patent US 6207646.
AR140471
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Krieg,A.M., Klinman,D. and Steinberg,A.D.

Immunomodulatory oligonucleotides

Patent: US 6194388-A 20 27-FEB-2001;
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Similarity 100.0%; Pred. No. 1.2e+03;
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Krieg, A.M. and Weiner, G.

Methods and products for stimulating the immune system immunotherapeutic oligonucleotides and cytokines Patent: US 6218371-A 19 17-APR-2001;

Location/Qualifiers
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                                                                                                         Unclassified.
1 (bases 1 to 20)
Davis,H.L., Schorr,J. and Krieg,A.M.
Use of nucleic acids containing unme
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Krieg,A.M. and Kline,J.N.
Immunostimulatory nucleic acid molect
Patent: US 6239116-A 27 29-MAY-2001;
                                                                             Patent: US 6406705-A 16 18-JUN-2002;
Location/Qualifiers
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Sequence 582 from Patent
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Krieg, A.M. and Hartmann, G.
Immunostimulatory nucleic acid molecules
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Location/Qualifiers
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594 from Patent WO0122972.
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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Sequence 59 from Patent
AX105160
AX105160.1 GI:13921310
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AX104555
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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                                     Krieg, A.M.
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Patent: WO 0122990-A 59 05-APR-2001;
Coley Pharmaceutical Group, Inc. (US)
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                                                                                      synthetic construct
synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunomodulatory oligonucleotides
Patent: EP 1167377-A 20 02-JAN-2002;
THE UNIVERSITY OF IOWA RESEARCH FOUNDATION
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Immunomodulatory oligonucleotides
Patent: EP 1167379-A 20 02-JAN-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic Oligonucleotide"
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/mol_type="genomic DNA"
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Rrieg, A.M.

Immunomodulatory oligonucleotides
Patent: EP 1167378-A 20 02-JAN-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
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/mol type="genomic DNA"
/db_xref="taxon:32630"
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/mol_type="genomic DNA"
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Search completed: January 20, 2004, 20:43:23 Job time: 567.647 secs

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438.095 Million cell updates/sec
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Nucleotide sequenc
B-cell stimulating
Parasitic infectio
Immunostimulatory
Immune remodeling
Mouse B cell stimu
                                                                                                                                                       Description
                                                                                                       IL-12 secretion in
                                                                                                                    Immunostimulatory
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Immunostimulatory	ABL35236	24	26	81.2	13	5
Immunostimulatory	ABL35114	24	26	Ľ	13	44
Immunostimulatory	ABL35237	24	25	81.2	13	43
Immunostimulatory	ABL35300	24	24	81.2	13	42
Immunostimulatory	ABL35489	24	22	•	13	41
Immunostimulatory	ABL35414	24	22		13	40
Immunostimulatory	ABL35395	24	21	•	13	39
Immunostimulatory	ABL35378	24	21	81.2	13	38
Immunostimulatory	ABX76005	25	20	•	13	37
Cancer medicament	ABX89817	25	20	81.2	13	36
Gastric ulcer trea	ACA58670	25	20		13	35
Immunostimulatory	ABL38880	24	20		13	34
Immunostimulatory	ABL38879	24	20		13	33
Immunostimulatory	ABL38750	24	20	81.2	13	32
Immunostimulatory	ABL35506	24	20	•	13	31
Immunostimulatory	ABL35279	24	20	81.2	13	30
Immunostimulatory	ABL35256	24	20		13	29
Immunostimulatory	ABL35235	24	20		13	28
Immunostimulatory	ABL35234	24	20		13	27
Immunostimulatory	ABL35233	24	20		13	26
Immunostimulatory	ABL35232	24	20		13	25
Immunostimulatory	ABL35211	24	20		13	24
Immunostimulatory	ABL35210	24	20	81.2	13	23
Immunostimulatory	ABL35209	24	20	•	13	22
Immunostimulatory	ABL35190	24	20	81.2	13	21
ator	ABL35126	24	20	•	13	
Murine Toll-like r	AAL39172	24	20	•	13	19
\mathbf{r}	ABS70530	24	20	•	13	18
	ABS78263	24	20	81.2	13	17
	ABS78110	24	20	•	13	16
	ABS78098	24	20		13	15
CpG Oligonucleotid	AAH19280	22	20	81.2	13	14
Immunomodulatory.a	AAD02980	22	20		13	13
Immunostimulatory	AAF99547	22	20		13	12
Immunostimulatory	AAF99457	22	20	81.2	13	H
	AAF99445	22	20		13	10
CpG immunostimulat	AAF98786	22	20	81.2	13	9

ALIGNMENTS

01-OCT-1998 (first entry)

AAV27695;

AAV27695 standard; DNA; 20

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RESULT 1
AAV27695/c
ID AAV276
AC ID AAV276
AC AAV276
XX Inmuno
XX 
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                                                                                                                                                           Kline JN,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                           WPI; 1998-272127/24
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RESULT 2
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The ODNs activate lymphocytes in a subject and redirect a subject's immune response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other cells to produce Th1 cytokines, including IL-12, IFN-gamma and CGM-CSF). The ODNs can be used to treat or prevent an asthmatic disorder, autoimmune diseases, in desensitisation therapy, as an artificial adjuvant during antibody generation in a mammal such as a mouse or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
                                            Novel synergistic combinations of immunostimulatory oligonucleotides and immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                 CGG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion; human PBMC; immune response; cancer; hacterial disease; asthma; neoplastic disorder; jaaggiekte; B cell; NK cell; ss; cytokine; antigen presenting cell; infection; allergic disease:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs) of the invention. The ODNs contain at least one unmethylated Cg dinucleotide, and have the formula:

5' NIXICGX2N2 3', where at least one nucleotide separates consecutive
                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New immunostimulatory nucleic acid molecules - which contain at least one unmethylated CpG dinucleotide, used for treating e.g.
                                вувсет
                                                                                                  WPI; 1999-620169/53.
                                                                                                                                                                                                                                   02-APR-1999;
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                                                                                                                                 AM, Weiner G;
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100.0%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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Example 8; Page 71; 91pp; English

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THE PROPERTY OF A PROPERTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
AAZ60948/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cc antigen specific immune response against a cancer antigen. The methods cc can also be used to treat neoplastic disorders in humans, including but cnot limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, come infectious diseases, e.g. viral diseases such as HIV, cc bacterial diseases, and fungal diseases. The methods are also useful come treat allergic diseases, e.g. asthma. The methods and compositions may calso be applied to treat cancer and tumours in non human subjects, ce.g. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemangiopericytoma and bovine ocular compositions infectious, contagious diseases of sheep and goats caused by the bacterium Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep caused by jaagsiakte may also be treated. CpG oligonucleotides can be useful in activating B cells, NK cells, and antigen presenting cells, such as monocytes and macrophages. CpG oligonucleotides enhance antibody dependent cellular cytotoxicity and correct anainst a tumour antigens to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunostimulatory; stereoisomer; CpG oligonucleotide; Th2; Th1; asthma allergic reaction; allergen; cancer antigen; cancer; immunoinhibitory; inflammatory disease; inflammatory bowel disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antigen, an immunopotessitating expectation specific immune oligonucleotide to induce a synergistic antigen specific immune response. The methods are useful for treating cancer by stimulating an response. The methods are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequences AAZ41856-Z41949 are phosphorothicate CpG oligonuclectides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune
                           Immunostimulatory and immunoinhibitory stereoisomers of CpG oligonucleotides useful for immunotherapy of cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gingivitie;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ60948 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 6 A; 6 C; 5 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       response in a subject comprising administering to a subject exposed antigen, an immunopotentiating cytokine and an immunostimulatory Co
                                                                                                                                WPI; 2000-195254/17
                                                                                                                                                                                             Krieg
                                                                                                                                                                                                                                                                                                                                                                27-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                             27-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ60948;
                                                                                                                                                                                                                                                          (IOWA ) UNIV IOWA RES FOUND. (CPGI-) CPG IMMUNOPHARMACEUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200006588-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                against a tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGAGCGTTCTC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           psoriasis; sepsis; ss.
                                                                                                                                                                                                                                                                     IMMUNOPHARMACEUTICALS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                98US-0094370
                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US17100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of an immunostimulatory CpG oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   challenge.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13; DB; Pred. No. 1.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 20;
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Disclosure;

Page

10; 88pp;

English

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RESULT 4
AAZ48853/c
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         redirecting a subject is immune response from a Th2 to a Th1, for treating asthma, for desensitising a subject against the occurrence of an allergic reaction in response to contact with an allergen, for activating an immune cell, especially a lymphocyte or a dendritic cell expressing a cancer antigen or for treating cancer. The immunoinhibitory nucleic acid can be used to prevent an immune response, especially where the immune response in the subject is excessive due to having received an immune stimulating compound. The immunoinhibitory nucleic acid can be used to treat a subject having or at risk of an inflammatory disease, especially inflammatory bowel disease, autoimmune disease, gingivitis,
This sequence represents a B cell stimulatory oligonucleotide. The invention relates to compositions comprising an oligonucleotide (I) with unmethylated guanine and cytosine nucleotides and an antigen in a carrier. The oligonucleotides can be administered to a subject in a composition with an antigen in a carrier to enhance an immune response lenhancing B cell activation. The oligonucleotides are immunostimulatory and can be used to treat, prevent or ameliorate an immune system deficiency e.g. cancer or a viral, fungal, bacterial or parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W
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acid sequence, fr
                                                                                                                                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                    Immunostimulatory oligonucleotides which enhance B cell activation useful for treating an immune system deficiency e.g. cancer - \,
                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-086224/07.
                                                                                                                                                                                                                                                                                                                                                                                                                    Krieg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-FEB-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunostimulatory molecule; infection; therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ48853 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunostimulatory nucleic acids can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        with an antigen to induce an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ60933-Z61015 represent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (IOWA ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           stimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -Z61015 represent immunostimulatory stereoisomers of CpG leotides. The sequences are derived from generic nucleic uence, from which immunoinhibitory sequences may also be The immunostimulatory nucleic acids can be co-administered antigen to induce an antigen-specific immune response. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGAGCGTTCTC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                    Column 29; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IOWA RES FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94US-0276358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0386063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         σ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune response; B cell activation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligonucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 13; DB 21;
Pred. No. 1.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ODN3Dg.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in methods for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                               (I) with
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RESULT 5
AAZ47618/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
cc parasitic infection by administration of unmethylated CpG
coligonucleotides. The CpG oligonucleotides are able to stimulate the
cc innate immune system via the activation of immune cells, such as antigen
cc presenting cells, natural killer cells and granulocytes. The CpG
cc oligonucleotides and the method can be used to treat and prevent
cc parasitic diseases, such as malaria, helminth diseases, tick and mites
cc in humans, animals and poultry. The oligonucleotides may be administered
cc in conjunction with parasiticides or other therapeutic compounds after
cc an organism has been diagnosed to be infected with parasites. Diseases
cc which can be treated or prevented include those caused by Plasmodium
cc falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babbsia
cc microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
cc major, L. donovani, L. braziliensis, and L. tropica. The parasite is
cc especially capable of causing malaria. The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infection. They can also be administered as a vaccine adjuvant to stimulate the response of a host to a vaccine. The compositions can be used to treat humans or vertebrate animals including dogs, cats, sheep pigs, cows, goats, chickens, mice and monkeys. Preceding chemotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       with the immunostimulatory oligonucleotides should be useful fincreasing the responsiveness of malignant cells to subsequent chemotherapy. The 8-40 nucleotide size of the oligonucleotides facilitates uptake into cells.
                                                                                                                                                                                                                                                      The present invention describes a method for treating and preventing parasitic infection by administration of unmethylated CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immune system; immunostimulatory; parasitic infection; parasi
CpG oligonucleotide; antigen presenting cell; natural killer
granulocyte; malaria; helminth disease; tick; mite; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ47618
                                                                                                                                                                                                                                                                                                                                   Treating and preventing parasitic infections using CpG oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-062123/05
                                                                                                                                                                                                                                                                                                                                                                                                      Gramzinski RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-NOV-1999.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Parasitic infection preventing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13;
                                                                                                                                                                                                                                                                                                                                                                                                                                      US SEC OF NAVY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGAGCGTTCTC
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                                                                                                                                                                                                                                                                                                    Page
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0084512
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 A;
                                                                                                                                                                                                                                                                                                                                                                                                    Krieg AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
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                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                      Davis HL,
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          other;
                                                                                                                                                                                                                                                                                                                                                                                                       Hoffman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The compositions can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20
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RESULT 6
AAZ47823/c
ID AAZ47823
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Best Local
                                          atopic conditions. The antigen may be derived from infectious organisms such as infectious bacteria, viruses, parasites or fungi. It can be used in humans or animals, e.g. bovine, equine, feline, swine, aquatic or avian species. The ONs act as potent mucosal adjuvants to induce immune responses at both local and remote sites against an antigen administered to the mucosal tissue. Both systemic and mucosal immunity are induced by mucosal delivery of the ONs. AAZ47808 to AAZ47891 represent examples of immunostimulatory oligonucleotides given in the
                                                                                                                                                                  (1) administering to a mucosal surface of a subject an ON, having a sequence including at least the formula (1); and (2) exposing the subject to an antigen to induce the MIR, where the antigen is not encoded in a nucleic acid vector: 5'XIX2CGX3X43' (1), where C and G = unmethylated, and X1, X2, X3 and X4 = nucleotides. The method can be used for treating a subject at risk of developing an allergic reaction, cancer or infectious disease. It can be used for treating asthmatic subjects, eczema, allergic rhinitis or coryza, hay fever, conjunctivitis, bronchial asthma, urricaria, food allergies or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LOEB-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antigen; allergic reaction; cancer; infectious disease; asthma; allergic rhinitis; coryza; hay fever; conjunctivitis; bronchial urticaria; food allergy; atopic condition; mucosal delivery; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAR-2000
                                                                                                                                                                                                                                                                                                                           The present invention describes a method using CpG containing oligonucleotides (ONs) as adjuvants for inducing an immune re-
                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-062585/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 24; 116pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                           Use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       McCluskie MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mucosal immunity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunostimulatory oligonucleotide sequence SEQ ID
                                                                                                                                                                                                                                                                                                            The method for inducing a mucosal immune response (MIR)
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                                                                                                                                                                                                                                                                                                                                                                                                          response
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOEB HEALTH RES INST
CPG IMMUNOPHARMACEUTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                              invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B HEALTH RES INST AT OTTAWA HOSPITAL. IMMUNOPHARWACEUTICALS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Davis HL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunostimulatory; CpG motif;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81.2%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune response;
                                                                                                                                                                                                                                                                                                                                an immune response.
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CC oligonuclectides (ONs) for regulating immune system remodeling and for cegulating haematopoiesis. The method for inducing an antigen-specific cc immune response comprises (1) administering an ON having a sequence cc including at least the formula (I); and (2) exposing the subject to an tigen at least 3 days after the ON is administered to the subject to an tigen at least 3 days after the ON is administered to the subject to an cc antigen at least 8 nucleotides; C and G = unmethylated, and CC produce an antigen-specific immune response: 5 x1CX2 3 (II), where cc the ON = includes at least 8 nucleotides; C and G = unmethylated, and CC x1 and X2 = nucleotides. The method can be used for inducing an immune cc response against an antigen such as cells, cell extracts, proteins, CC polysaccharides, polysaccharide conjugates, lipids, glycolipids, CC carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and CC allergens. It can be used in a subject at risk of developing cancer or an allergic reaction. It can also be used for treating an infectious cliesase, allergic diseases and asthma, as well as thrombocytopenia cy and interespondent of thrombocytopenic purpura, or resulting from accidental or therapeutic creation despite adequate iron stores, chronic disease such as haemoglobinopathy and inherited haemolytic anaemia, inadorders such as theumatoid arthritis, cc or anaemia resulting from accidental or therapeutic such as resulting and chronic inflammatory disorder such as recumand arthritis, cc or anaemia resulting from accidental or therapeutic such as the 
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ID AAZ479
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Best Local S
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thrombocytopaenia; immunohaemolytic disorder; genetic disorder;
haemoglobinopathy; kidney failure; chronic inflammatory disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 65; 116pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antigen-specific immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wagner H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CpG containing
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   arthritis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMMUNOPHARMACEUTICALS GMBH.
IMMUNOPHARMACEUTICALS INC.
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99US-0241653.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    regulation; CpG oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 thrombopoiesis; anaemia; immune
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oligonucleotides for, e.g. inducing
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1.8e+02;
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RESULT 8
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C(IL-6), interferon-gamma (IFN-gamma) or IL-12, or for stimulating contract killer cell lytic activity. The methods comprise administering to the subject or exposing a natural killer cell to an immunostimulatory mucleic acid. Also described are: (1) inducing IL-6 in a subject comprising administering to the subject to induce IL-6 in the subject the immunostimulatory nucleic acid; (2) stimulating natural killer cell to the lytic activity comprising exposing a natural killer cell to the lytic activity; (3) inducing interferon-gamma in a subject to treat an immune cativity; (3) inducing interferon-gamma in a subject to treat an immune system deficiency comprising administering to the subject to induce contexferon-gamma production, the immunostimulatory nucleic acid; and (4) inducing IL-12 in a subject to mean administering to the subject the immunostimulatory nucleic acid. The methods are useful for inducing C(IL-6, interferon-gamma or IL-12, or stimulating natural killer cell lytic activity in a subject, particularly a human. The methods are particularly useful for modulating an immune response. AAH50571 to CAAH50671 represent oligonucleotide sequences used in the exemplification
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used in the
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                                                                                                                                                                                                                                             The present invention describes an improvement to a method requiring the administration of interferon alpha (IFN-alpha), involving administering an immunostimulatory nucleic acid (ISNA). The sequences of a number of such nucleic acids are also provided. These may comprise oligonucleotides with phosphorothicate backbones, palindromes, or G-rich sequences. The sequences of the invention are useful in the treatment of proliferative diseases, such as cancers, and viral infections. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Improving the efficacy of treatments interferon-alpha by co-administering nucleic acid -
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RESULT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
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                                                                                                                                AAF99457 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                            also useful for preventing cancer, asthma, infectious disease,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-273485/28
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COLEY PHARM GMBH.
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RESULT 12
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Note: the present sequence may have a phosphorothioate backbone.
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                                                                                                                                                                                                                                 Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-țimmunostimulatory; tumour; viral infection; bacterial infection; fungal infection; parasitic infection; cancer; asthma; infectious disease; allergy; immune deficiency; phosphorothioate
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infectious disease; allergy; immune deficiency; phosphorothicate;
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RESULT 13
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Note: the present sequence may have a phosphorothicate backbone.
                                                                                                                                                                                             Oligodeoxyribonucleotide; ODN; cytosine-guanine dinucleotide; CpG; immunostimulatory; therapy; immune system deficiency; tumour; cancantibacterial; antiparasitic; fungicide; antiviral; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
                                                                                                                                                                                                                                                                                                                                AAD02980 standard; DNA; 20
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27-SEP-1999;
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                       (15,
                                                                                                     (10,
                                                 (13, C)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.8e+02;
                                                                                                                                                                      antisense; mutant; ss.
                                                                                                                                                                                    sepsis; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                                                                                   3Dg mutant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              having unmethylated CpG dinuclectides are useful for activating physhocytes and for treating, preventing or ameliorating an immune system deficiency e.g. tumour or cancer or viral, fungal, bacterial or parasitic infection and leukaemia. Neural ODN that contains a methylated CpG dinuclectide are useful for treating diseases such as systemic lupus erythematosus, sepsis and autoimmune diseases. Immunoinhibitory ODN containing CpG dinuclectides that are not in the stimulatory motif and GCG trinuclectides that are not in the stimulatory motif and activity. The present sequence is an immunomodulatory antisense oligodeoxyribomuclectide (ODN) 3Dg mutant. This is used to determine whether CpG or non-CpG ODNs causes B cell activation and immunoglobulin M (IgM) secretion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to immunomodulatory oligodeoxyribonucleotides (ODNs) containing methy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a subject, comprises antigen and immunostimulatory nucleic acid comprising oligonucleotides having unmethylated cytosine-guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 6 A; 6 C; 5 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligodeoxyribonucleotides (ODNs) containing methylated or unmethylated cytosine-guanine (CDG) dinucleotides. Immunostimulatory ODN compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dinucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mutation
                                                                             Synthetic.
                                                                                                                                                           gene therapy;
                                                                                                                                                                                                                                      CpG Oligonucleotide #16 used to stimulate mouse B cells.
                                                                                                                                                                                                                                                                                           13-JUL-2001
                                                                                                                                                                                                                                                                                                                                               AAH19280;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Column 31-32; 20pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunostimulatory composition useful for stimulating immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-217934/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Krieg
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                                                                                                                               leukaemia;
                                                                                                                                                                                 Immunostimulant; antiallergic; cytostatic; antiasthmatic; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                       AAH19280
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                                                                                                                                                                                                                                                                                                                                                                                                       standard;
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                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                           immune system
                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Steinberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 f
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                                                                                                                                                           deficiency; tumour; cancer; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .8e+02;
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RESULT 15
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to a composition comprising an isolated immunostimulatory nucleic acid which comprises unmethylated cytosine-guanine (CpG) dinucleotides and an antigen in a carrier. The present sequence is an oligonucleotide, which was used in the present invention. The immunostimulatory nucleic acids are useful for ameliorating an immune system deficiency (the presence of tumour, cancer or infectious agent) in a subject. The immunostimulatory nucleic acids are useful for desensitising a subject against the occurrence of an are also useful for desensitising a subject against the occurrence of an area to useful for desensitising a subject against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the occurrence of an area to the present against the present ag
                                                                                                                                                                                                                                                                                                                                                       tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis; diabetic retinopathy; retinopathy of prematurity; macular degeneration; corneal graft rejection; neovascular glaucoma; retrolental fibroplasia; rubeosis; Osler-Webber Syndrome; myocardial angiogenesis; plaque neovascularisation; telangiectasia; haemophiliac joint; angiofibroma; wound granulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Compositions comprising immunostimulatory molecules which comprise unmethylated CpG dinucleotides useful for ameliorating immune systateficiency, treating leukemia and desensitizing subject against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-OCT-1996;
                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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15-JUL-1994;
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                                                                                                             WO200253141-A2
                                                                                                                                                                                                                                                                                                                            intestinal adhesion;
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COLEY PHARM GROUP INC
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94US-0276358.
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                                                                                                                                                                                                                                                                                                                                 atherosclerosis; scleroderma; hypertrophic scar
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Pred. No.
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Search completed: January 20, 2004, 18:51:36 Job time: 100.588 secs

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                                                                                                                                                                                              administering at least one antiangiogenic nucleic acid molecule.

Also included is a kit comprising a first container housing the antiangiogenic nucleic acid molecule.

By a subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, nevouscular glaucoma, retrolental fibroplasia, rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophiliac joints, angiofibroma, wound granulation, intestinal adhesions, atherosclerosis. Scleroderma and hypertrophic accounts.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; Page 29; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inhibiting angiogenesis in a subject, involves administering at least one antiangiogenic nucleic acid molecule to the subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-566690/60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bratzler RL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-DEC-2001; 2001WO-US48458
                                                                                                                                                                        atherosclerosis, scleroderma and hypertrophic scars. The present sequence is an antiangiogenic nucleic acid of the invention.
                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to inhibiting angiogenesis in a subject, administering at least one antiangiogenic nucleic acid molecul
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13; Conserv
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 CTGGAGCGTTCTC
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                                                                   Conservative
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                                                                                     100.0%;
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                                                                                     Score 13;
Pred. No.
                                                                       Mismatches
                                                                                     DB 24; 1
1.8e+02;
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Result
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Maximum
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Perfect score:
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match Length
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2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
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Copyright (c) 1993 - 2004 Compugen Ltd
   220691566 residues
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US-08-386-063-20
US-08-386-063-20
US-08-38-652-30
US-09-286-098-19
US-09-286-098-19
US-09-325-193A-16
US-09-191-170-19
US-09-191-170-19
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US-08-238-863-22
US-08-443-407-22
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US-08-423-582-12
US-08-640-189
PCT-US95-05600-189
PCT-US95-05600-189
PCT-US95-05600-189
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PCT-US95-05600-189
PCT-US95-05600-189
US-09-1859-998-640
US-09-255-201B-640
US-09-255-201B-640
US-09-364-707A-16
US-09-187-650-113
US-08-621-018B-37
US-09-483-665-37
US-09-483-665-37
US-09-513-974B-305
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Sequence 20, Appl Sequence 20, Appl Sequence 30, Appl Sequence 11, Appl Sequence 16, Appl Sequence 16, Appl Sequence 17, Appl Sequence 22, Appl Sequence 45, Appl Sequence 45, Appl Sequence 18, Appl Sequence 16, Appl Sequence 16, Appl Sequence 17, Appl Sequence 18, Appl Sequence 12, Appl Sequence 12, Appl Sequence 640, Appl Sequence 113, Appl Sequence 14, Appl Sequence 17, Appl Sequence 74, Appl Sequence 305, Appl S
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RESULT 1 US-08-386-063-20/c Sequence 20, App Patent No. 60082 GENERAL INFORMA APPLICANT: A TITLE OF INVE NUMBER OF SEQ CORRESPONDENC ADDRESSEE: STREET: 60 CITY: BOST COUNTRY: MAS COUNTRY: 02109 COMPUTER READ		c 45		43	42	41	40	c 39			c 36	35	34		c 32		30	29	28	
SULT 1 -08-386-063-20/c Sequence 20, Application US/08386063 STATE OF INVENTION: IMMUNOMODULA NUMBER OF SEQUENCES: 27 CORRESPONDENCE ADDRESS: ADDRESSE: LAHIVE & COCKFIELD STREET: 60 STATE STREET, SUITE CITY: BOSTON STATE: MASSACHUSETTS COUNTRY: USA ZIP: 02109-1875 COMPUTER READABLE FORM:											11 6		11 6		6	6	6	6	6	
0/c Application U Application U B200 RMATION: RATHUR M. K RTHUR M. K NVENTION: IM SEQUENCES: 2 ENCE ADDRESS: ENCE ALIVE & 60 STATE STR OSTON MASSACHUSETTS USA 109-1875 109-1875		62.5	•		•	•			80	80	68.8	œ	œ	&	8.8	8.8	8.8	8.8	8.8	
on US/083 4. Krieg, IMMUNOM 27 28. COCKF 3 & COCKF STREET, STTS								16 3			474 4						384 3			
1 US/08386063 Krieg, M.D. IMMUNOMODULATORY OLIGONUCLEOTIDES 27 58: 6 COCKPIELD 6 COCKPIELD 7TREET, SUITE 510 PTS	ALIGNMENTS		US-08-386-063-	Sn	SD	SD	US	3 US-08-073-985-2	S	SD	S	SD	Sn	1 US-09-252-991A-7102	Sn		3 US-09-296-284-72	SD	3 US-08-513-974B-304	
		15,	14,	10	ω,	œ •	13	2	76,	70,				7102,	121,	121,	Sequence 72, Appl	73,		

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TELEFAX: (617)227-5941
; INFORMATION FOR SEQ ID NO: 2
; SEQUIENCE CHARACTERISTICS:
; LENGTH: 20 base pairs
TYPE: nucleic acid
; TYPE: nucleic single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-08-386-063-20
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                                                                   Matches
                                                                                              Query Match
                                                                                                                                                                                                                                                          CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-013CP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPHONE: (617)227-5941
TELEPAX: (617)227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/386,063
 13
                                                               ch 81.2%; Sulfamilarity 100.0%; 1 13; Conservative 0;
                        4 CTGGAGCGTTCTC 16
 CTGGAGCGTTCTC
                                                                 Score 13; DB
;; Pred. No. 17;
0; Mismatches
                                                                                    DB 3;
17;
                                                                 0;
                                                                                                  Length 20;
                                                                   Indels
                                                                   0;
                                                                   Gaps
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RESULT 2

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US-08-386-063-20/c

Sequence 20, Application US/08386063 Patent No. 6194388

GENERAL INFORMATION:

TITLE OF INVENTION:

Arthur M. Krieg, M.D.

IMMUNOMODULATORY OLIGONUCLEOTIDES

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                                     US-08-738-652-30
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                                                                                                            SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 30 LENGTH: 20 TYPE: DNA
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Best Local
Query Match
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ZIP: 02109-18/J
ZIP: 02109-18/J
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: TBM PC compatible
TWOTEM: PC-DOS/MS-DOS
                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/08/738,652B CURRENT FILING DATE: 1996-10-30 EARLIER APPLICATION NUMBER: US 08/276,358 EARLIER FILING DATE: 1994-07-15 EARLIER APPLICATION NUMBER: US 08/386,063 EARLIER APPLICATION NUMBER: US 08/386,063 EARLIER FILING DATE: 1995-02-07 NUMBER OF SEQ ID NOS: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-
TELECOMMUNICATION INFORMATION:
TELEPHNE: (617)227-7400
TELEPHNE: (617)227-5941
                                                                                                                                                                                                                                                                                                                     APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7004 HCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (617)227-594: INFORMATION FOR SEQ ID NO:
                                                 FEATURE: OTHER INFORMATION: Synthetic oligonucleotide
                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII text CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/386,063
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DEDNESS: single
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100.0%; Pred. No.
tive 0; Mismatc
 81.2%;
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 Score 13;
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 DB 3;
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 Length 20;
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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 27, Application US/08960774 Patent No. 6239116
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LENGTH: 20
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APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating
TITLE OF INVENTION: Immune System Using Immunotherapeutic
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                 SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/960
FILING DATE: 30-October-1997
CLASSIFICATION: 514
                                                                                                                                                                                                                                       ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Krieg et al.,
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
              ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No.
FILING DATE: October 30, 1996
CLASSIFICATION: 514
                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                              COUNTRY: UP
                                                                                                                                                                                                                                                                                                                               STREET: 4225 E:
CITY: La Jolla
REGISTRATION NUMBER:
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                                                                                                                                                                                                                                         Floppy disk
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tive 0; Mismatches
                                                                                                                                                       US/08/960,774
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k; Pred. No. 17;

0; Mismatches
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17;
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                                                                                     08/738,652
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APPLICANT: Schorr, Joachim
APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Use of Nucleic Acids Containing
TILLE OF INVENTION NUMBER: Use 09/125,193A
CURRENT APPLICATION NUMBER: Use 09/154,614
PRIOR APPLICATION NUMBER: Use 09/154,614
PRIOR APPLICATION NUMBER: Use 09/154,614
PRIOR FILING DATE: 1998-03-16
PRIOR FILING DATE: 1998-03-10
PRIOR APPLICATION NUMBER: Use 09/154,614
PRIOR PRIOR DATE: 1998-03-10
PRIOR PRIOR DATE: 1998-03-10
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US-09-325-193A-16/c
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                                                                                                                                                                          Sequence 19, Application US/09191170 Patent No. 6429199
GENERAL INFORMATION:
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Best Local (
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SEQ ID NO 16
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Best Local S
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APPLICANT: Krieg, Arthur M.
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
TITLE OF INVENTION: for Activating Dendritic Cells
FILE REFERENCE: C1039/7017
CURRENT APPLICATION NUMBER: US/09/191,170
CURRENT FILING DATE: 1998-11-13
EARLIER APPLICATION NUMBER: US 08/960,774
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Synthetic Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 20
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LENGTH: 20 base pairs
TYPE: nucleic acid
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TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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17;
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; FEATURE: ; OTHER INFORMATION: synthetic oligonucleotide US-09-191-170-19
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US-08-238-863-22
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US-09-397-787-308
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EARLIER APPLICATION NUMBER: US 08/738,652
EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER FILING DATE: 1995-02-07
; EARLIER APPLICATION NUMBER: US 08/276,358
; EARLIER FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 99
                                                                                                                                                              Sequence 22, Application US/08238863
Patent No. 5503978
GENERAL INFORMATION:
APPLICANT: SCHNEIDER, D. J., GOLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 334
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 19
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Benson, Darin R.
APPLICANT: Lodes, Michael J.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR OVARIAN
TITLE OF INVENTION: CANCER THERAPY AND DIAGNOSIS
FILE REFERENCE: 210121.466C2
CURRENT APPLICATION NUMBER: US/09/397,787
CURRENT FILING DATE: 1999-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 4:
TYPE: DNA
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                                                                                                       TITLE OF INVENTION: HIGH-AFFINITY SEDNA L.
TITLE OF INVENTION: REVERSE TRANSCRIPTASE
NUMBER OF SEQUENCES: 94
                                                                                        CORRESPONDENCE ADDRESS:
                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                325 CTGGAGCGTTCTC 313
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Similarity 100.0%;
Denver
Colorado
                                      #403
                                                       4582
                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                             SCHNEIDER, D. J., GOLD, L., AND FEIGON, J. PENTION: HIGH-AFFINITY BEDNA LIGANDS OF HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                 Beaton & Swanson, P.C.
B2 South Ulster Street Parkway, Suite
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100.0%; Prr
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Pred. No.
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17;
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RESULT 10
US-08-238-863-45
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APPLICANT: SCHNEII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (303) 850-9401
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX17
TELECOMMUNICATION:
                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                   SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/238,863
FILING DATE: 6-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
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OPERATING SYSTEM: MS-DO
SOFTWARE: WORDERFECT!
CURRENT APPLICATION DATA:
                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SCHNEIDER, D. J., GOLD, L., AND FEIGON, J.
TITLE OF INVENTION: HIGH-AFFINITY SEDNA LIGANDS OF HIV-1
TITLE OF INVENTION: REVERSE TRANSCRIPTASE
NUMBER OF SEQUENCES: 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
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MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                        AUURESSEE: Beaton & Swanson, P.C.
STREET: 4582 South Ulster Street Parkway, Suite
STREET: #403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    y Match 75.0%; Score 12;
Local Similarity 100.0%; Pred. No.
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TOPOLOGY: lir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Barry J. Swanson REGISTRATION NUMBER: 3
APPLICATION NUMBER: 07/71 FILING DATE: 10-JUNE-1991
                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                            CITY: Denver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
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5. 5503978
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 ACTCTGGAGCGT 12
                                                                                                                                                                                                                          80237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCTGGAGCGT 30
                                                                                                                                                                                                                                                           Colorado
                                                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WordPerfect 5.1
                                                                                                                                                             E: Diskette, 5.25 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (303) 850-9900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Diskette, 5.25 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                             MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MS-DOS
               07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 81; 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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RESULT 11
US-08-443-407-22
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Patent No. 5786462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 75.0%;
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: SCHNEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (303) 850-9401
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 81
                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/238,
FILING DATE: 6-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,
APPLICATION NUMBER: 07/536,
                                               PRIOR APPLICATION DATA:

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/964,624

FILING DATE: 21-0CTOBER-1992

ATTORNEY/AGENT INFORMATION:

NAME: BATTY J. SWENBON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 11-JUNE PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: BY COLORADO CITY: Englewood CITY: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX17
TELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                               SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/443,407 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/08443407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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VENTION: HIGH-AFFINITY SEDNA
VENTION: LIGANDS OF HIV-1 REVERSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                 IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303) 850-9900
                                                                                                                                                                                                                                                                                                                                                                                                                    Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-JUNE-1990
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                                                                                                                                                                                                                                                                                                                                                                                   MS-DOS
                                                                                                                                                        07/536,428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07/964,624
                                                                                                                                                                                                            07/714,131
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                                                                                                        07/964,624
                                                                                                                                                                                                                                                               08/238,863
                                                                                                                                                                                                                                                                                                                                                                                                                    3.50 inch, 1.44 MB
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Gaps

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US-08-443-407-45
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                                           US-08-443-407-45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 5786462
GENERAL INFORMATION:
APPLICANT: SCHNEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO:
                                                                                                                                TELEFAX: (303) 793-3433
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/238,863
FILING DATE: 6-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 81
                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM COM
OPERATING SYSTEM:
                                                         STRANDEDNESS:
TOPOLOGY: li
                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                        NAME: Barry J. Swanson REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/964,6 FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH:
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12; Conserva
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                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08443407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCHNEIDER, D. J., GOLD, L., AND FEIGON, J. VENTION: HIGH-AFFINITY 85DNA
VENTION: LIGANDS OF HIV-1 REVERSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM compatible
                                                           linear
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                                                                       single
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100.0%; PJ
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75.0%;
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                                                                                                                                                                                                                                                                 07/964,624
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                                                                                                                                                                                                     33,215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.50 inch,
                                                                                                                                                                                         NEX17/C1
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; Pred. No.
 Score 12;
Pred. No.
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 DB 1;
73;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 81;
             Length
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PCT-US95-05600-166
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                                                                                                                        PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 07/964,624
APPLICATION NUMBER: 21-OCTOBER-1992
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 07/536,428
                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 06-MAY-1994
PRIOR APPLICATION UNDER: 08/248,632
PFILING DATE: 24-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/238,863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
MEDIUM TYPE: storage
COMPUTER: IBM compatibl
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                           PILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/53
                                                                           FILING DATE: 11-JUNE PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                             FILING DATE: 09-SEPTEMBER-1994
PRIOR APPLICATION NUMBER: 08/361,795
FILING DATE: 21-DECEMBER-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOPTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
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TITLE OF INVENTION:
                                                                                                                                                                                                                              FILING DATE: 08-SEPTEMBER-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/931,473
                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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FILING DATE: 11-JUNE-1990 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 80111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US95/05600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19 ACTCTGGAGCGT 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SULLENGER, BRUCE A.
DOUDNA, JENNIFER, A.
DOUDNA, HIGH-AFFINITY LIGANDS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GOLD, LARRY NIEUWLANDT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WECKER, MATTHEW SCHNEIDER, DANIEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEIGON, JULI
ALLEN, PATRICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Swanson & Bratschun, L.L.C.
30 B. Prentice Avenue, Suite 200
                                                                                                              11-JUNE-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                             07/536,428
                                                                               07/714,131
                                                                                                                                                                                                                                                                                  08/117,991
                                                                                                                                                                                                                                                                                                                                                                                 08/303,362
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.5 inch, 1.44 MG
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                FILING DATE: 21-DECEMBER-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                      APPLICATION NUMBER: 08/2:
PRIOR DATE: 06-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/2-
PILING DATE: 24-MAY-1994
                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: SULLENGER, BRUCE A.
APPLICANT: DOUDNA, JENNIFER, A.
APPLICANT: DOUDNA, JENNIFER, A.
TITLE OF INVENTION: HIGH-AFFINITY LIGANDS OF
TITLE OF INVENTION: INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE
TITLE OF INVENTION: P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
NUMBER OF SEQUENCES: 239
                                                                                                                    FILING DATE: 09-SEPT PRIOR APPLICATION DATA:
                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION DATA:
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Local Similarity 100.0%; Pred. No.
hes 12; Conservative 0; Mismatc
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 33,
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FOR APPLICATION DATA: APPLICATION NUMBER:
                                                 APPLICATION NUMBER:
                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US95/05600
                                                                                                                                                       APPLICATION NUMBER:
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NIEUWLANDT, DAN
WECKER, MATTHEW
SCHNEIDER, DANIEL J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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ALLEN, PATRICK
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                                                     08/117,991
                                                                                                       08/361,795
 07/931,473
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     inch, 1.44 MG
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PCT-US95-08295-23
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; MOLECULE TYPE:
PCT-US95-08295-23
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Best Local (
                                                         Matches
                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: NE TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 11-JUNE PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
STRANDEDNESS: sing
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 17-AUGUST-1992
                                                                                                                                                          LENGTH: 490 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US95/08295 FILING DATE: 30-JUN-1995
                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Barry J. Swans REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
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                                                                                                                                                                                                                                    CLASSIFICATION:
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 129 ACTCTGGAGCGT 140
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                      ACTCTGGAGCGT 12
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                                                         Conservative
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                                                                                                                                                 linear
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21-OCTOBER-1992
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11-JUNE-1990
                                                                                                                               DNA (genomic)
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                                                            Mismatches
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Search completed: January 20, 2004, 20:03:12 Job time : 26.1765 secs

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Minimum DB seq length: 0
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m2 6/ptodata/1/pubpna/US09B PUBCOMB.seq:*

m2 6/ptodata/1/pubpna/US09C PUBCOMB.seq:*

m3 6/ptodata/1/pubpna/US09C PUBCOMB.seq:*

m3 6/ptodata/1/pubpna/US09 NEW PUB.seq:*

m3 6/ptodata/1/pubpna/US10A PUBCOMB.seq:*

m3 6/ptodata/1/pubpna/US10B PUBCOMB.seq:*

m3 6/ptodata/1/pubpna/US10B PUBCOMB.seq:*

m3 6/ptodata/1/pubpna/US10 NEW PUB.seq:*

m3 6/ptodata/1/pubpna/US10 NEW PUB.seq:*

m3 6/ptodata/1/pubpna/US10 NEW PUB.seq:*
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NEW PUB.seq:*
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PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIE

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81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	100.0	100.0	Match
20	20	20	20	20	20	20	20	20	20	20	20	20	16	16	Query Match Length DB
11	11	11	11	11	片	11	H	11	10	10	10	9	15	13	
US-09-776-479-747	US-09-776-479-594	US-09-776-479-582	US-09-931-583-20	US-09-818-918-30	US-09-888-326-278	US-09-888-326-277	US-09-888-326-119	US-09-415-142-20	US-09-920-313-16	US-09-895-007A-16	US-09-800-266A-16	US-09-824-468-19	US-10-068-160-73	US-10-194-035-113	ID
Sequence 747, App	Sequence 594, App	Sequence 582, App	Sequence 20, Appl	Sequence 30, Appl	Sequence 278, App	Sequence 277, App	Sequence 119, App	Sequence 20, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 19, Appl		Sequence 113, App	Description

RESULT 2

16 13 81.2 20 11 US-09-954-987B-47 Sequence 47, Appl 18 13 81.2 20 13 US-10-187-264A-27 Sequence 27, Appl 18 13 81.2 20 13 US-10-265-072-59 Sequence 27, Appl 20 13 81.2 20 14 US-10-023-909A-16 Sequence 27, Appl 21 13 81.2 20 15 US-10-112-653-559 Sequence 571, Appl 22 13 81.2 20 15 US-10-112-653-721 Sequence 571, Appl 22 13 81.2 20 15 US-10-112-653-721 Sequence 571, Appl 22 13 81.2 20 15 US-10-112-653-720 Sequence 571, Appl 23 13 81.2 20 15 US-10-112-653-720 Sequence 571, Appl 25 13 81.2 20 15 US-10-017-995-982 Sequence 594, Appl 26 13 81.2 20 15 US-10-017-995-94 Sequence 594, Appl 27 13 81.2 20 15 US-10-1017-995-97 Sequence 594, Appl 28 13 81.2 20 15 US-10-1017-995-91 Sequence 19, Appl 29 13 81.2 20 15 US-10-161-295-1668 Sequence 19, Appl 29 13 81.2 20 15 US-10-161-295-1668 Sequence 19, Appl 29 13 81.2 20 15 US-10-089-308 Sequence 19, Appl 30 13 81.2 433 11 US-09-918-995-6168 Sequence 276, Appl 31 US-09-876-889-308 Sequence 102, Appl 32 13 81.2 433 11 US-09-988-326-276 Sequence 276, Appl 32 13 US-09-886-326-276 Sequence 276, Appl 39 US-09-886-326-276 Sequence 276, Appl 30 US-09-978-397 Sequence 597, Appl 30 US-10-017-955-97 Sequence 597, Appl 30 US-10-017-955-97 Sequence 574, Appl 30 US-10-017-953-574 Sequence 574, Appl 30 US-10-017-955-97 Sequence 24520, Appl 30 US-10-029-386-24520 Sequence 24520, Appl 30 US-10-029-386-24520 Sequence 24520, Appl 30 US-10-029-386-24520 Sequence 6203, Appl 30 US-10-029-386-24520 Sequence 6203, Appl 31 US-10-029-386-24520 Sequence 6203, Appl 31 US-10-029-386-24520 Sequence 6203, Appl 31 US-10-029-386-24520 Sequence 183, Appl 31 US-10-029-386-34520 Sequence 183, Appl 31 US-10-029-624	0	, ה ה שעאבה	0000			000000
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77 Sequence 47, Sequence 27, Sequence 27, Sequence 16, Sequence 16, Sequence 559, Sequence 720, Sequence 720, Sequence 747, Sequence 10, Sequence 10, Sequence 10, Sequence 10, Sequence 10, Sequence 276, Sequence 276, Sequence 276, Sequence 597, Sequence 597, Sequence 597, Sequence 275, Sequence 597, Sequence 597, Sequence 597, Sequence 6203, Sequence 1248 Sequence 123, Sequence 183,			15 11 15		15 15 15 15	113 113 114 115
e 6 2276 1 183 e 6 2276 1 183 e 6 203 e 7 2	US-09-778-320-183 US-09-910-689-183 US-10-010-742-183 US-10-044-090-624	US-10-098-263B-124825 US-10-029-386-24520 US-09-923-876-6203 US-09-923-876-6203		-99 -99 889	-10-112-653 -10-112-653 -10-017-995 -10-017-995 -10-017-995 -10-017-995	-100-
	183, 183, e 183, e 624,	e 2452 e 2452 e 6203, e 6203	e 102, e 276, e 597, e 574, e 597,	e 19, 1 e 6168 e 4250 308, 1	720 774 582 594 16,	e 47, e 59, e 57, e 559,

ALIGNMENTS

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                                                                             Best Loc
Matches
                                                                                                                                                                                                 SEQ ID NO 113
LENGTH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: URRTHELTI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                                                   Local
                                                                             l Similarity
16; Conserv
                                     ACTCTGGAGCGTTCTC 16
  ACTCTGGAGCGTTCTC 16
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                                                                                Conservative
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                                                                         100.0%; P
                                                                             Score 16; DB
Pred. No. 2.4
0; Mismatches
                                                                                                                   DB 13; Length 16;
                                                                             Indels
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                                                                             Gaps
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US-09-800-266A-16/c
; Sequence 16, Application US/09800266A
; Patent No: US20020156033A1
; GENERAL INFORMATION:
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US-09-824-468-19/c
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                                                                                RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
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                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 105
SOFTWARE: FRSTSEQ for Windows Version 3.0
SEQ ID NO 19
LENGTH: 20
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/824,468
CURRENT FILING DATE: 2001-04-02
PRIOR APPLICATION NUMBER: 09/286,098
PRIOR FILING DATE: 1999-04-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.1

SEQ ID NO 73

LENGTH: 16
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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100.0%; Pred. No. 1.6e+02;
tive 0; Mismatches 0;
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RESULT 6
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Sequence 16, Application US/09920313
Publication No. US20020198165A1
GENERAL INFORMATION:
APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
TITLE OF INVENTION: Nucleic Acids for the Prevention
TITLE OF INVENTION: Treatment of Gastric Ulcers
FILE REFERENCE: C1037/7019 (HCL/MAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: INVUMENTATION NUCLEIC ACIDS FOR THE TITLE OF INVENTION: TREATMENT OF ANEMIA, THROMBOCYTOPENIA, FILE REFERENCE: C1041/7014 (AWS)

CURRENT APPLICATION NUMBER: US/09/895,007A

CURRENT FILING DATE: 2001-06-28

PRIOR APPLICATION NUMBER: US 60/214,368

PRIOR APPLICATION NUMBER: US 60/214,368

PRIOR FILING DATE: 2000-06-28

NUMBER OF SEQ ID NOS: 133

SOFTWARE: FASTSEQ for Windows Version 3.0

SEQ ID NO 16

LENGTH: 20
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SEQ ID NO 16
LENGTH: 20
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Best Local 8
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Schetter, Christian
APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Bratzler, Robert L. APPLICANT: Petersen, Deanna M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE: OTHER INFORMATION: Synthetic Sequence
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100.0%; F1
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pred. No. 1.6e+02
0; Mismatches
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Pred. No.
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hes 0;
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                                                                                                                                                                                                                                                                                   RESULT 8
US-09-888-326-119/c
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 20
LENGTH: 20
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Publication No. US20030026782A1
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 16
LENGTH: 20
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                                               TITLE OF INVENTION: Methods for Enhancing Antibody-Induced TITLE OF INVENTION: Cell Lysis and Treating Cancer FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Steinberg, Alfred D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
FILE REFERENCE: C1039/7029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Krieg, Arthur M. APPLICANT: Klinman, Dennis APPLICANT: Steinberg, Alfr
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SOFTWARE: FastSEQ for Windows Version 3.0 
SEQ ID NO 119
                                 NUMBER OF SEQ ID NOS: 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/415,142
CURRENT FILING DATE: 1999-10-09
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CURRENT FILING DATE: 2001-08-01
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100.0%;
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Pred. No. 1.6e+02;
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; OTHER INFORMATION: Synthetic oligonucleotide NAME/KEY: misc_feature ; LOCATION: (0)...(0) ; OTHER INFORMATION: phosphodiester backbone US-09-888-326-277
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US-09-888-326-277/c
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SEQ ID NO 277
LENGTH: 20
TYPE: DNA
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Best Local Similarity
       APPLICANT: Weiner, George
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR PILING DATE: 2000-06-22
PRIOR PILING DATE: 2000-06-22
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APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
PRIOR FILING DATE: 2000-06-22
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LOCATION: (0)...(0)
OTHER INFORMATION: phosphodiester backbone
NAME/KEY: misc feature
LOCATION: (1)...(1)
OTHER INFORMATION: biotinylated 5' end
NUMBER OF SEQ ID NOS: 848
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Pred. No.
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Pred. No.
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US-09-818-918-30/c
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; Publication No. US20030050261A1
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SEQ ID NO 30
LENGTH: 20
TYPE: DNA
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Best Local (
                                 APPLICANT: Steinberg, Alfred
TITLE OF INVENTION: Methods and Products for Treating HIV Infection
FILE REPERENCE: C1039/7053 (HCL)
CURRENT APPLICATION NUMBER: US/09/931,583
CURRENT FILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/818,918
CURRENT FILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR FILING DATE: 1994-07-15
PRIOR APPLICATION NUMBER: US 08/386,063
PRIOR FILING DATE: 1995-02-07
PRIOR APPLICATION NUMBER: US 08/738,652
PRIOR APPLICATION NUMBER: US 08/738,652
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TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REPERENCE: C1039/7048 (AWS)
CURRENT FILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR FILING DATE: 1994-07-15
                                                                                                                                     APPLICANT: Krieg, Arthur APPLICANT: Klinman, Dennis
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100.0%;
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; OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-20
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; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-582
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PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 582
LENGTH - - -
                                                                                                                                                                                                                                    Sequence 594, Application US/09776479 Publication No. US20030087848A1 GENERAL INFORMATION:
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LENGTH: 20
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            APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
ITITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
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APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
CURRENT FILING DATE: 1026-0170 001
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PRIOR FILING DATE: 1999-10-09
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SOFTWARE: PatentIn version 3.0
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ORGANISM: Artificial Sequence
FEATURE:
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TYPE: DNA
ORGANISM: Artificial Sequence
OFTWARE: FastSEQ for Windows Version 3.0
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APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Tyes
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: Cl037/7013 (HCL/MAT)
CURRENT APPLICATION NUWBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 747
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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US-09-776-479-747/c
US-09-776-479-747/c
Sequence 747, Application US/09776479
Publication No. US20030087848A1
GENERAL INFORMATION:
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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-594
Search completed: January 20, 2004, 20:51:03 Job time : 107.353 secs
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; OTHER INFORMATION: Synthetic Sequence US-09-776-479-747
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LENGTH: 20
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NAME/KEY: misc_feature

LOCATION: (1)...(3)

OTHER INFORMATION: Conjugated to biotin moiety.
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AQ526058 HS_5309_B
                                                     Description
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AUTHORS
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CA778499
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                             Email: suchytas@msu.edu
Single Pass sequencing. Bases called and alt-trimmed with phred
v0.0204425.c. Vector identified by cross_match with the -minscore
                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 199)
Center for Animal Functional Genomics.
Generation of ESTs from mixed pig cDNA libraries
                                                                                                                                                                                          Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                    CA778499 199 bp mRNA linear EST 03-DEC-20 MPL384 9 H02 MPL Sus scrofa cDNA clone pSPORT1 5', mRNA sequence. CA778499
                                                                                             Contact: Steven P. Suchyta
Center for Animal Functional Genomics, Department of Animal Science
Michigan State University
          v0.0204425.c. Vector ide 20 -minmatch 12 options. Seq primer: T7.
                                                               B215 Anthony Hall, East Lansing,
Tel: 517 355 8443
Fax: 517 432 9168
                                                                                                                             Unpublished
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3 AZ857020
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AA301955 EST15024
AA192765 ZG12410.s
BB7757771 CM4-CT057
AW614275 hg91e09.x
BE876790 601488364
A1786422 uj55c08.x
AA192729 zg124009.r
AA776083 ae79405.s
AW352336 CM4-HT013
CM279527 G44223.80
AA889647 ak50c04.s
BA161312 zp58c01.s
B1162729 RE01964.3
AA115055 Z106c09.s
AA739047 vv66d05.r
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AW414250 U096C11.y
AZ857020 ZMO1611109
CA938841 Sav38f12.
BU973804 HB26A09r
BQ467058 HS02H04r
AZ696255 RPCI-32-2
BQ296418 San91h05.
CA938075 Sav47e09.
AZ098299 RPCI-23-1
AW396924 SG64h12 y
BI316264 Saf01b05.
CA03639 OSJNEA11A
BH110075 RPCI-24-3
BQ462451 HD01B227
BW954762 Sam73b03.
CA007728 HU08N10r
BF230055 SCM4-CT048
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15; Conserv
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1 (bases 1 to 428)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 1814 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3', mRNA sequence.
AI401438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A1401438 APAR-1999 TRNA linear EST 30-MAR-1999 tg64a08.xl Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2113526 3', mRNA seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              High quality sequence stop: 420.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=Torgan: pooled; Vector: pSPORT1; Site_1: Not1; Site_2: SalI, Library made from pooled tissue from adipose, adrenal gland, blood leukocytes, brain, cartilage, eye, heart, intestine, kidney, liver, lung lymph nodes, mammary gland, myogenic satellite cells, ovary, pancreas, pituitary gland, placenta, skin, spinal cord, spleen, stomach, tendon, testes, uterus, and vascular from various developmental and physiological stages."
                      pregnant uterus"

/lab_host="DH10B"

/lab_host="DH10B"

/clone lib="Goares NhHMPu S1"

/clone lib="Goares NhHMPu S1"

/note="Organ: mixed (see Delow); Vector: pT7T3D-Pac

/pharmacia) with a modified polylinker; Site 1: Not I;

(Pharmacia) with a modified polylinker; Site 1: Not I;

(Pharmacia) with a modified polylinker; Site 1: Not I;

(Pharmacia) with a modified polylinker; Site 1: Not I;

(Pharmacia) with a modified polylinker; Site 1: Not I;

(Pharmacia) with a modified shall provide state of the solution of the solu
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/dev_stage="pooled"
                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"

mol_type="mRNA"

db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="MPL"
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mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                               'tissue_type="Pooled human melanocyte, fetal heart,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sex="Male and female"
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                                                                                                                                                                                                                                                                                                                                                           clone="IMAGE:2113526"
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AQ526058

HS_5309_B1_A12_T7A RPCI-11 Human Male BAC Library Homo sapiens genomic clone Plate=885 Col=23 Row=B, genomic survey sequence. AQ526058
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   end search page:
http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq_primer: M13 Reverse
Class: BAC ends.
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Use of BAC End Sequences from CalTech Libraries for Sequence-Ready
Map Building
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1 (bases 1 to 445)
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CITBI-E1-2589E3.TR CITBI-E1 Homo sapiens genomic clone 2589E3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Shaying Zhao, William Nierman, Mark Adams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhao, S., Adams, M.D., Nierman, W., Malek, J., Shizuya, H., Simon, M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: hbe@tigr.org
Clones are available from Research Genetics (info@resgen.com). BAC
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340488-345479, and 484488-489479."
a 138 c 144 g 74 t
                                                                                                                                                                                                                                                                                                                                                   /cell_type="sperm"
/clone lib="CITBI-E1"
/clone lib="CITBI-E1"
/note="Vector: pBeloBAC11; Site_1: EcoRI;
CalTech Human BAC Library D"
B3 c 118 g 107 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="2589E3"
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tive 0; Mismatch
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495 bp DNA linear GSS 28-AUG-ASP 0045 Al_C04_SP6E Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=45 Col=7 Row=E, genomic survey sequence.
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Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T.,
Keller,A., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D.
                                                              Strongylocentrotus purpuratus
Eukaryota; Metazoa; Echinodermata; Eleutherozoa;
Echinoidea; Euechinoidea; Echinacea; Echinoida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               library availability, please contact Pieter de Jong (pieter@dejong.med.buffalo.edu). Clounes may be purchased from BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm) or from Resear h Genetics (info@resgen.com). BAC end Web_Server:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AQ526058.1
GSS.
Cameron, R.A., Mahairas, G., Rast, J.P., Martinez, P., Biondi, T.R.,
                    Strongylocentrotidae; Strongylocentrotus.
1 (bases 1 to 495)
                                                                                                                              Strongylocentrotus purpuratus
                                                                                                                                                                          AZ141640
AZ141640.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://www.htsc.washington.edu
Plate: 885 row: B column: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clones are derived from the human BAC library RPCI-11. For BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: jwallace@u.washington.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Mahairas GG, Wallace JC,
High Throughput Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence-tagged connectors: A sequence approach to mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       scanning the human genome
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(206) 616-3887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   quality sequence stop: 480
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Vector: pBACe3.6; Site_1: ECORI; Site_2: ECORI; Male blood DNA was isolated from one randomly chosen do and partially digested with a combination of ECORI and ECORI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at ECORI sites" 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
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SOURCE
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D59115
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                                                                                           source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     311
                                                                                                                                           Otsuka GEN Research Institute Otsuka Pharmaceutical Co.,Ltd 463-10 kagasuno Kawauchi-cho, Tel: 0886-65-2888
                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 322)

Fujiwara,T., Hirano,H., Katagiri,T., Kawai,A., Kuga,Y., Nagata,M., Okuno,S., Ozaki,K., Shimizu,F., Shimada,Y., Shinomiya,H., Takaichi,A., Takeda,S., Watanabe,T., Takahashi,E., Hirai,Y., Maekawa,H., Shin,S. and Nakamura,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D59115 322 bp mRNA line HUM522B03B Clontech human placenta polyA+ mRNA cDNA clone GEN-522B03 5', mRNA sequence.
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                                                                                                                                                                                                                                   Pujiwara et al. (1995)
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Cameron, RA, Davidson, EH, Division of Biology 156-29 California Institute of Technology Pasadena California 91125, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Swartzell, S., Wallace, J.C., Poustka, A.J., Livingston, B.T., Wray, G.A., Ettensohn, C.A., Lehrach, H., Britten, R.J., Davidson, E.H. and
                                                                                                                                                                                                                  Contact: Tsutomu Fujiwara
                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
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Class: BAC ends
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: acameron@caltech.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 97 (17), 9514-9518 (2000)
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(626) 793-3047
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DNA"
/db xref="taxon:7668"
/clone="Plate=45 Col=7 Row=E"
/clone lib="Strongylocentrotus purpuratus, purple sea
urchin, sperm genomic BAC library"
/organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="GEN-522B03"
/clone_lib="Clontech human placenta polyA+ mRNA (#6518)"
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                                                                                                        ocation/Qualifiers
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100.0%;
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Pred. No.
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RNA (#6518) Homo sapiens
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REFERENCE
AUTHORS
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ACCESSION
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Best Local :
                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                       Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=CM2&t2=CM2-CI0179-
201100-537-a10&t3=2000-11-20&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 351.
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                    N
                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                         Similarity
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CTCTGGAGCGTTCT 15
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                                                   87.5%; Score 14; DB 10; llarity 100.0%; Pred. No. 2.4e+02; Conservative 0; Mismatches 0;
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                                                                                                                                            Ø
                                                                                                                                         /cloime lib="CIO179"
/cloime lib="CIO179"
/note="Organ: colon_ins; Vector: puc18; Site_1: SmaI;
/site_2: SmaI; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
80 c 87 g 84 t
                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
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) CI0179 Homo sapiens cDNA,
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2.4e+02;
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Query Match
Best Local (
241 CTCTGGAGCGTTCT
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                                                                                                                          14;
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High quality sequence stop: 353.
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Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid
; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycine.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BE555509
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                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                 86
                                                                                                                                                                                                                                                                        / CLUME—TVECTOR: BBluescriptII SK+; Site 1: ECORI; Site 2: /notes—Tvector: BBluescriptII SK+; Site 1: ECORI; Site 2: XhOI, This CDNA library was constructed from mRNA isolated from etiolated hypocotyl tissue of 9-10 day old seedlings of the cultivar Williams 82. Complementary DNA was synthesized from mRNA using a primer consisting of a poly(dT) primer with a XhOI restriction site. ECORI adapters were ligated to the blunt-ended cDNA fragments followed by digestion with ECORI and XhOI. The cDNA fragments were directionally cloned into the ECORI-XhOI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DH10B host cells (Gibco BRL). This library was constructed by Dr. Randy Shoemaker."

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/db_xref="taxon:3847"
/db_xref="taxon:3847"
/clone="GENOME SYSTEMS CLONE ID: Gm-c1045-891"
/clone="GENOME SYSTEMS CLONE ID: Gm-c1045-891"
/clone="Hypocotyl, 9-10 day old etiolated seedlings"
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/mol_type="mRNA"
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                                                                                                                                                       87.5%;
100.0%;
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Pred. No. 2.4e+02;
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UI-M-A00-aby-a-09-0-UI.rl NIH BW
UI-M-A00-aby-a-09-0-UI 5', mRNA
                 Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: 22313tcn@ibm.cl.msu.edu.
Location/Qualifiers
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Michigan State University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Thomas Newman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genes galore: a summary of methods for accessing results from
large-scale partial sequencing of anonymous Arabidopsis cDNA clones
Plant Physiol. 106, 1241-1255 (1994)
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Newman,T., deBruijn,F.J., Green,P., Keegstra,K., Kende,H.,
L., Ohlrogge,J., Raikhel,N., Somerville,S., Thomashow,M.,
E. and Somerville,C.
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Arabidopsis thaliana
Arabidopsis thaliana
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosid
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43 Lambda-PRL1 Arabidopsis thaliana
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Tel: 517-353-0854
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(bases 1 to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="Lambda-PRL1"
//note="Vector: Lambda Shlox-1; Site_1: EcoRI; Site_2:
//note="Vector: Lambda PRL1 is a cDNA library derived from equal findIII; Lambda PRL1 is a cDNA library derived from equal quantities of 4 pools of mRNA. The mRNA sources were 1) 7 day germinated etiolated seedlings; 2) tissue culture grown roots; 3) staged plants half with 24 hour light cycle, half on 16 hr light, 8 hour dark- rosettes; 4) same plants as 3 but aerial tissue (stems, flowers and siliques. The library was made in Novagen's Lambda Shlox-1 with (oligo dr primed) directional inserts cloned between the EcoRI and HindIII sites. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="var columbia"
/db_xref="taxon:3702"
/clone="SCF10T7P"
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(mol_type="mRNA"
                                                                                                                                           GI:9977897
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L NIH BMAP MPG Mus musculus
, mRNA sequence.
                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                            AW414260
uo96c11.yl NCI_CGAP_Mam3
similar to gb:L19953 Mus
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Ch
cDNA Library Preparation: Life Technologies, Inc
                                                              Unpublished Contact: Robert Strausberg, Ph.D.
                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 411)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                    Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA Library Preparation: M.B. Soares Lab Clone distribution: Researchers may obtain BWAP CDNA clones from RESEARCH GENETICS. It should be noted that Bento Soares tremerating a small number of additional specialized non-redundant srenerating by CDNAs whose availability will be considered under appropriate and limited collaborative arrangements
                                                                                                                                                                                                                                                                                                  AW414260.1 GI:6940505
                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
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20892-9643, USA
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National Institute
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: mEST@mail.nih.gov
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301 443 9890
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/lab_host="pH108 (Life Technologies)"
/lab_host="PH108 (Life Technologies)"
/clone lib="NIH BMAP MPG"
/note="Vector: pT735-Pac (Pharmacia) with a modified
/note="Vector: pT735-Pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Eco RI; The
NIH BMAP MPG library is a non-normalized library
constructed from mouse pineal gland. The tag is a string
of 5 nucleotides present between the Not I site and the
oligo-dT track. The library was constructed as described
by Bonaldo, Lennon and Soares, Genome Research 6: 791-806
, 1996. Tissue provided by Ms. Annie Novakovich,
Zivic-Miller Laboratories."
                                                                                                          Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:10090"
/clone="UI-M-AO0-aby-a-09-0-UI"
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/strain="C57BL/6J"
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2.5e+02;
thes 0;
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                      Chu-Xia Deng
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                                     Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: (
Plate: 0161 row: I column: 09
Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 422)

Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AZ857020
422 bp DNA linear GSS 21-FEB-200200161109R Mouse 10kb plasmid UUGCIM library Mus musculus genomic clone UUGC2M0161109 R, genomic survey sequence.
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                                                                                                                                           Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                          Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Res
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High quality sequence stop: 422.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                   plasmid inserts
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/note="organ: mammary; Vector: pcMV-SPORT6; Site 1: SalI;
Site 2: NotI; Cloned unidirectionally. Primer: Ōligo dT.
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Chu-Xia Deng, NIH
Reference for transgenic model: Xu et al., Nature Genetics
22, 37-43 (1999).
3 122 c 107 g 79 t
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/lab_host="DH10B"
/clone 1:b.""""
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|mol_type="mRNA"
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|db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                            Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C. Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurl, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CA938841
sav38f12.y1 Gm-c1069 Glycine max cDNA clone Gm-c1069-5639 5', mRNA sequence.
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                                                                                                                                                         Contact: Shoemaker R/Public Soybean EST Project
Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glycine max
Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact: ccu@resgen.com web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CA938841
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Glycine max (soybean)
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314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pwh92 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
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/clone_lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: pWp42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackso
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/strain="C57BL/6J"
/db_xref="taxon:10090"
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                                                                                                                                                                 Box 8501, St. Louis, MO
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Corrensstr. 3, 06466, Gatersleben, Tel: 039482-5522
Fax: 039482-5595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Triticeae; Hordeum.

1 (bases 1 to 435)
Radchuk, V., Zhang, H., Weschke, W.,
Barley ESTs from developing seeds
                                                                                                                                                                                                                                                                                                  Email: stein@ipk-gatersleben.de
Insert Length: 435 Std Error: 0.00
Plate: 26 row: A column: 9
Seq primer: Ml3rev.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
Contact: Stein Nils
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Hordeum vulgare subsp. vulgare
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Spermatophyta, Magnoliophyta, Lillopsida, Poales, Poaceae, Pooideae
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BU973804.1 GI:24224597
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//Clone lib="Gm-Cl069"
//Cl069"
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etiolated seedling"
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                                                                                                                                   /mol_type="mRNA"
/cultivar="barke"
                                                                                                                                                                                                         organism="Hordeum vulgare subsp. vulgare"
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| clone="SOYBEAN CLONE ID: Gm-c1069-5639"
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mol_type="mRNA"
                                   'db_xref="taxon:112509"
'clone="HB26A09"
                                                                                               db_xref="GABI:238650"
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_type="developing caryopsis"
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Pred. No. 2.6e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
Fax: 039482-5595
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Hordeum vulgare subsp. vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldea
; Triticeae; Hordeum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: stein@ipk-gatersleben.de
Insert Length: 442 Std Error:
Plate: 2 row: H column: 4
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/lab_host="XL10-Gold"
/clone_lib="BC"
/clone_lib="BC"
/note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of CDNA); Site_2: XhoI (3'-end of cDNA); developing caryopsis, 8-15 DAP(days after pollination) Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SalI, PstI). NOTE: Also due to the cloning system used Blue/white selection for recombinats is not 100% reliable."
            /note="Vector: pBluescript SK+; Site 1: EcoRI (5'-end of /note="Vector: pBluescript SK+; Site 1: EcoRI (5'-end of /note="Vector: pBluescript SK+; Site 1: EcoRI (5'-end of cDNA); Site 2: XhoI (3'-end of cDNA); Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NoT present, as well as the EcoRIdapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SalI, PstI). NOTE: Also due to the cloning system used Blue/white selection for recombinate is not 100% reliable."
                                                                                                                                                                                                                                                   /tissue_type="embryo + scutellum"
/dev_stage="0-16 hours after imbibition"
/lab_host="XLL0-Gold"
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/cultivar="barke"
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2.6e+02;
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Query Match 87.5%; Score 14; DB 13; Length 442;
Best Local Similarity 100.0%; Pred. No. 2.6e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 3 TCTGGAGCGTTCTC 16
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Db 399 TCTGGAGCGTTCTC 412

Search completed: January 20, 2004, 20:01:29
Job time: 988.412 secs
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Minimum
Maximum
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Perfect score:
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Result Score Query Match 2658 101715 110000 3090490 3100290 325651 16 16 16 17 17 17 17 18 18 18 18 18 18 19 197252 199450 207184 215789 234627 171351 172305 176146 110992 128789 143779 Length B MMNETRN ATF4D11 AX123430 BD165547 AX428867 AX429521 AX465364 AX104532 AX465357 AX194414 AX194407 AX352259 **ATCYC3B** AX465361 ä AX352258 AP004750 Oryza sat AC119639 Rattus no AC023124 Homo sapi AL161581 Arabidops AC005674 Homo sapi AC012361 Homo sapi AC012361 Homo sapi AC012361 Homo sapi AC0133174 Rattus no AC132335 Mus muscu AC132335 Mus muscu AC132335 Mus muscu AC132335 Mus muscu AC126818 Rattus no AC009528 Homo sapi AC127700 Rattus no AC127770 Rattus no AC127770 Rattus no AC127730 Sequence AB016861 Pseudomon AP005283 Corynebac AX052273 Sequence AX352273 Sequence AX352273 Sequence AX352300 Sequence AX365364 Sequence AX104535 Sequence AX104535 Sequence AX104536 Sequence AX104536 Sequence AX194411 Sequence AX145361 Sequence AX352160 Sequence AX352160 Sequence AX352273 Sequence AX352273 Sequence AX352275 Sequence AX123430 Sequence BD165547 Novel pol AX428867 Sequence AX429521 Sequence Z31402 A.thaliana AL360314 Arabidops AC113911 Rattus no Z32815 M.musculus AL022537 Arabidops Continuation (2 of Description Sequence Sequence Sequence

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Yokoi,H., Tateishi,N., Senoh,A., Ikeda,M. and Ozaki,A. Novel polynucleotides	yawa,S., Mizoguchi,H., Ando,S., Hayashi		Corynebacterineae; Corynebacteriaceae; Corynebacterium.	Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;	Corynebacterium glutamicum	Corynebacterium glutamicum		AX123430.1 GI:14040918	3430	Sequence 3346 from Patent EP1108790.	3430 1125 bp DNA		
nd Ozaki	, M., Och		nebacter	Actinom							linear		
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KYOWA HAKKO KOGYO CO LTD

COTYNEBACTETIUM Glutamicum
PN JP 2002191370-A/3346

PD 09-JUL-2002
PF 15-DEC-2000 JP 2000405096
PF SATOSHI NAKAGAWA, HIROSHI MIZOGUCHI, SEIK
PI KEIKO OCHIAI,
PI HARUHIKO YOKOI, NAOKO TATEISHI, AKIHIRO S
PI OZAKI
PC C12N15/09, C12N15/09, C07K14/34, C07K16/12

C12N1/15,
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372
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PC C42P19/16
PC C12P19/16
G01N33/566,
PC G01N33/5
PC C12N15/0
PC C12N15/0
PC C12N5/0
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KYOWA HAKKO KOGYO CO., LTD. (JP)
Location/Qualifiers
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1 (bases 1 to 1125)
Nakagawa, S., Mizoguchi, H., Ando, S., Hayashi, M., Ochiai Nakagawa, S., Mizoguchi, N., Senoo, A., Ikeda, M. and Ozaki, A. Yokoi, H., Tateishi, N., Senoo, A., Ikeda, M. and Ozaki, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unidentified unidentified
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JP 2002191370-A/3346.
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C12N5/00,C12N15/00
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SATOSHI NAKAGAWA, HIROSHI MIZOGUCHI, SEIKO ANDO, MIKIO HAYASHI,
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/mol type="genomic DNA"
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_355 c 283 g 214 t
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355 c 283 g 21
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ive 0; Mismatches
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1230 bp
Sequence 3 from Patent EP1202065.
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Sequence 3 from Patent WO0235235.
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Patent: EP 1202065-A 3 02-MAY-2002;
Aventis Pharma S.A. (FR); INSERM (
                                                                                                                                                                                                                                                                                           Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Patent: WO 0235235-A 3 02-MAY-2002;
AVENTIS PARAMA SA (FR); INST NAT SANTE
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//db_xref="GI:21540260"
//translation="MESAITLWOFILHLLLDQKHEHLICWTSNDGEFKLLKAEEVAKL
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WGLRKWKTNNNYDKLGRALRYYYDKNIIKKVIGQKFVYKFVYSFPDILKWDPHAVEISR
ESLLLQDGDCKVSPEGREVHRHGLSSLKSASRNEYLHSGLYSSFTINSLENAPEAFKA
IKTEKLEEPCDDSPPGEVRTVIRFVNINKTDKHITRFWMSLFSTSTAAAAASAFLAS
SVSAKISSLMLPNAASVSSVSSSSSRSPSLSPDSPLPSEHRSLFLEAACHESDSLEPL
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Three discrete classes of Arabidopsis cyclins are expressed during different intervals of the cell cycle
Proc. Natl. Acad. Sci. U.S.A. 91 (24), 11313-11317 (1994)
                                                                                                                                                                                                                                                                                                                                                                                         Submitted (08-MAR-1995) Van Montagu M., Rijksuniverisiteit Gent, Laboratory of Genetics, Ledeganckstraat, 35, Gent, Belgium, B-90 On Mar 25, 1995 this sequence version replaced gi:509426.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cyc3b gene; cyclin 3b.
Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
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1 (bases 1 to 1752)
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A.thaliana (Columbia) cyc3b mRNA for cy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Van Montagu, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laboratory of Genetics, revised by [4] MAT
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SVSAKISSLMLPMAASVSSVSBSSSRSPSISPDSPLPSEHRSLFHEAACHESDSLEPL
NLSSGSKTKSPSLPPKGKKPKGLEISAPQLLLSGTDIGSIALNSPALPSGSLTPAFFT
AQTPSGLPLASSPLLPSHHFWSSLSPVAPLSPARLQGPNTLFQFFTLLNGHMPVPLPS
LDRAPSPVLLSPSSQKS"
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141. .1451
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                                                                                                                                                                                                                    clone
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Tib="cell suspension lambda ZapII"
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Pred. No. 4.8e+02;
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Ledeganckstraat, 35, Gent, Belgium, B-9000
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ed gi:509426.
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TITLE

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93.8%;

Score 15;

DB 10;

Length 2658;

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                                                                                                                                                                                                                                                                                                                                                                         Submitted (29-APR-1994) Antoine Giovane, CNRS-LGME, INSERM-U.184, institut de Chimie, Biologique, 11 rue Humann, Strasbourg, 67085 Strasb. Cedex, France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Giovane,A., Pintzas,A., Maira,S.M., Sobieszczuk,P. and Wasylyk,B. Net, a negative factor switch to positive by Ras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Giovane,A., Pintzas,A., Maira,S.M., Sobieszczuk,P. and Wasylyk,B. Net, a new ets transcription factor that is activated by Ras Genes Dev. 8 (13), 1502-1513 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Net; ras gene.
Mus musculus (house mouse)
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Z32815
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DILVDMHTEKSKLAEDLSKIRMAEAQDVSLSNPKDESITEQQEDGSGVMELLQVVDID
SNVEDPGCCSLYAADIYNNLHVAELQQRPLANYMELVQRDIIDPDMRKIILDRVEVSD
DYKLVPDTLYLTVNLIDRFLSNSYIEERQRLQLLGVSCMLIASKYEELSAPGVEEPCFI
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LAELTLVEYSFLRFLSSLIAASAVFLARWTLDQTDHPWNPTLQHYTRYEVAELKNTVL
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                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
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SOURCE
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AL022537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (16-APR-1998) MIPS, at the Max-Planck-Institut fuer Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, Project Coordinator: Mike Bevan, Molecular Genetics Department, Cambridge Laboratory, John Innes Centre, Colney Lane, NR4 7UJ Norwich, UK, B-mail: michael bevan@bbsrc.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EU Arabidopsis sequencing, project. Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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complement(join(2154.
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complement (2909.
/gene="F4D11.10"
                                                                       /gene="F4D11.10"
                                                                                                                                                                              complement (2154.
                                                                                                                                                                                                  LWHSKPERFDIFHMILHSIWYNRVFQI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="F4D11.10"
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/chromosome="4"
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/variety="Columbia"
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                                                   /number=1
                                                                                                                                               gene="F4D11.10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="similarity to multiple exostosis 2, Homo sapiens"
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arevrtalppetptemmeflgrswsisallphvgnktsppitprtgremkhlyksmir
grtwgrrlkdqkekkkqetrtrnaeihaavsvagvaavvaataasnaiaaaedavest
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complement (join (6155. .6547,7111.
8082. .8136))
/gene="F4D11.20"
/note="similarity to predicted pro
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/gene="P4D11.20"
complement (join (6155. .6547,7111.
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                                                                                                                                                                                                     complement (join(9271. .9522,9555. 10008. .10115,10239. .10336,10486. .11083,11294. .11609))
                                                                                                                                                                                                                                                                                                      complement (join(9271. .9522,9555. .9704,9801. .9917, 10008. .10115,10239. .10336,10486. .10655,10768. .10844, 11004. .11083,11294. .11609))
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/gene="F4D11.20"
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/gene="F4D11.20"
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/gene="F4D11.20"
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/gene="F4D11.30"
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/gene="F4D11.20"
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/product="putative protein"
/protein_id="CAA18583.1"
/db_xref="GI:3063692"
/db_xref="SPTREMBL:065523"
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                       /product="putative protein"
/protein_id="CAA18584.1"
/db_xref="GI:3063693"
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                                                                                                   codon_start=1
                                                                                                                                                         note="similarity to
       _xref="SPTREMBL:065524"
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                                                   Conservative
                                                                                                   /note="tRNA"
13108. .13310
                                                                                                                                      /number=9
                                                                                                                                                                                                                                                                                /gene="F4D11.30"
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/gene="F4D11.30"
/number=4
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PEKRESFCFWYSVENDAFRQSLSPLEVALYGPRFTGVCAQILCANDKYLCQYEQDSHN

FWGDEHELVLGNTFSA.PGAKAPNKEVPEEFRRVSESFQATPFWHGCHICDGRTD

YABTVKSARWEYSTRPVYGWGDVGAKQKSTAGWPAAFPVFEPHWQICMAGGLSTGWIE

WGGEERFERDAPSYSEKNWGGGFPKWFWVQCNVFEGATGEVALTAGGGLRQLEGLTE

TYEBNAALVCYNYDGKNYEFVPWMYVYRWEMSPWGYWYITAENENHYVELARTWEAGT

PLRAPTTEVGLATACRDSCYGELKLQIWERLYDGSKGKLKVLTNPKAVKEDYERLLWI

PLRAPTTEVGLATACRDSCYGELKLQIWERLYDGSKGKLKVLTNPKAVKEDYERLLWI
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                                                                                                   note="EST Z33951 matches to coordinates 13310 to 13108"
                                                                                                                                                                                            number=8
                                                                                                                                                                                                        /gene="F4D11.30"
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                                                             93.8%; Score 15; 100.0%; Pred. No.
54626
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REFERENCE
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (05-JUL-2000) MIPS, at the Max-Planck-Institut fuer Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, E-mail: lemcke@mips.biochem.mpg.de,mayer@mips.biochem.mpg.de Project Coordinator: Mike Bevan, Molecular Genetics Department, Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                      Information on performance of analysis and a more detailed annotation of this entry and other sequences of chromosomes 3, 4 and 5 can be viewed at: http://www.mips.biochem.mpg.de/proj/thal/
                                                                                                                                                                                                                                                                                                                                                                                                                                     Laboratory, John Innes Centre, Colney Lane, E-mail: michael.bevan@bbsrc.ac.uk
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Direct Submission
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Bevan,M., Peters,S.A., van Staveren,M., Dirkse,W., Stiekema,W.,
Bancroft,I., Mewes,H.W., Rudd,S., Lemcke,K. and Mayer,K.F.X.
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Bevan, M., Volckaert, G., Grymonprez, B., Voet, M.,
Banoroft, I., Mewes, H.W., Rudd, S., Lemcke, K. and
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/trānblation="madltcttpfillypslv11lffysInhinq1fssvvdddpscrl
SSSPQAVFSSFR1fpfrsssscln1tsnnnstsevvvveevdeaver1eeglamaraa
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join(5081. .5302,5485. .5751)
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/chromosome="5"
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exon intron exon gene CDS 1	on 1	intron 1 exon 1	intron 1 exon 1 intron 1 intron 1 intron 1	exon 11	· V E/O	intron con con con con con con con con con c	intron con //	intron //
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Baldwin, D., Bardaranatke, D., Barber, M., Barnstead, M., Benahmed, F., Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M., Bryant, M., Budy, C., Burch, P., Burrell, K., Calderon, E., Cardenas, V., Carter, K., Cavez, G., Chen, X., Chen
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Allen, C., Allen, H., Alsbrooks, S., Amin, A., Angulano, D.,
Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H.,
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/gene="F2711_60"

/note="Published sequence extends beyond the 5' of annotation. This cannot be reconciled by any gene
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On Nov 19, 2002 this sequence version replaced gi:23815605.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Bach contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature
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1 128789: contig of 128789 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 is believed to be correct as given, he of the gaps between them are based on provided by the submittor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (see http://www.hgsc.bom.tmc.edu/docs/Genbank_draft_NOTE: This is a 'working draft' sequence. It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.)
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Center clone name: CH230-393022
Center Summary Statistics
Assembly program: Phrap; version 0.990329
Consensus quality: 124060 bases at least Q40
Consensus quality: 125303 bases at least Q30
Consensus quality: 126081 bases at least Q20
Estimated insert size: 125161; sum-of-contigs estimation
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clone_end:T7"
complement(5045. .5957)
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1338. .329
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/note="clone_boundary
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clone_end:T7"
                                                                                                                                                                                                                                   /mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-393022"
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                                                                                                                                                                                                                        Submitted (13-FEB-2002) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan (E-mail:tsasaki@nias.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, FEB-181-298-38-7441, Fax:81-298-38-7468)

NOTE: Il currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submitter. This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

* NOTE: This is a 'working draft' sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sasaki, T., Matsumoto, T. and Yamamoto, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published Only in Database (2002) 2 (bases 1 to 143779)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sasaki,T., Matsumoto,T. and Yamamoto,K. Oryza sativa nipponbare(GA3) genomic DN
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Oryza satīva (japonica cultivar-group)
Bukaryota, Viridiplantae, Streptophyta, Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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                                                                       organism="Oryza sativa
/mol_type="genomic_DNA"
/cultivar="Nipponbare"
                                       chromosome="6"
                                                                                                                                                   ocation/Qualifiers
                     clone="P0421H01"
                                                       db_xref="taxon:39947"
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Birect Submission

Birect Submission

Charles of the control whitehold Transfers.
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   LITECT SUDMILBSION

AL Submitted (25-APR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

CE 3 (bases 1 to 171351)

CB 3 (bases 1 to 171351)

RS Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Choepel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B., DeArellano, K., Collymore, A., Cook, A., Cooke, P., Corum, B., DeArellano, K., Collymore, A., Cooke, A., Cooke, P., Corum, B., DeArellano, K., Choepel, Y., Doniel, L., Erickson, J., Faro, S., Perreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Ferreira, P., Kalls, C., Landers, T., Levine, R., Hagos, B., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., MacClean, C., MacConnold, P., Major, J., Matthews, C., McCarthy, M., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Macdonald, P., Major, J., Matthews, C., McCarthy, M., MacConnold, P., Matthews, C., 
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Birren, B., Nusbaum, C.
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Unpublished
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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k; Pred. No. 6.1
0; Mismatches
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Vo, A., Wilson, B., Wu, X.
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Direct Submission
Submitted (24-FBB-2003) Whitehead Institute/MIT Center for Genome Submitted (24-FBB-2003) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Feb 24, 2003 this sequence version replaced gi:25989088.

All repeats were identified using RepeatMasker:
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                         μ.
  AC119639
                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                    ACTCTGGAGCGTTCT 113707
                                                                                                                                         ACTOTGGAGCGTTCT 15
                                                                                                                                                                                                                                                                                   54672
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Consensus quality: 170946 bases at least Q40
Consensus quality: 171051 bases at least Q30
Consensus quality: 171082 bases at least Q20
Insert size: 165000; agarose-fp
Insert size: 171151; sum-of-contigs
Quality coverage: 13.6 in Q20 bases; agarose-fp
Quality coverage: 13.1 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequencing vector: Plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
Center project name: L25218
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47860: gap of 100 bp
171351: contig of 123491 bp in length
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KEYWORDS
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Cardenas, V., Charter, K., Bulkeri, F., Bulkeri, F., Cardenas, V., Charter, K., Chen, G., Chen, R., Chen, Z., Chen, C., Cavales, I., Ceast, H., Center, A., Chen, Z., Chucko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chen, Z., Chu, J., Cheoko, J., Charter, K., Chen, Z., Chu, J., Cheoko, J., Chen, Z., Chu, J., Chen, Z., Chu, J., Chen, Z., Chu, J., Chen, Z., Chu, J., Chen, Z., Derand, C., Derand, C., Dederich, D., Davis, G., Derson, S., Derand, C., Dinh, H., Divya, K., Davis, G., Derson, S., Derson, C., Dinh, H., Divya, K., Davis, G., P., Chen, Z., Chen, Z., Chen, Z., Chen, Z., Chen, Z., Chen, J., Liu, 
Submitted (20-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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                                                                                                                                                                                                                                       Submitted (30-APR-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA
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Eukaryota; Metazoa;
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Direct Submission
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                                                                                                                                                               Rat Genome Sequencing Consortium.
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                                                                                                                              Direct Submission
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Homo sapiens chromosome 19 unordered pieces.
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This sequence will be replaced.
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1 172305: contig of 172305 bp in length.
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Center clone name: CH230-444M11
Center clone name: CH230-444M11
Center clone name: Phrap; version 0.990329
Assembly program: Phrap; version 0.990329
Consensus quality: 165019 bases at least Q40
Consensus quality: 16554 bases at least Q30
Consensus quality: 167424 bases at least Q20
Estimated insert size: 168444; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
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171273. .172305
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36286 c 35021 g
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mol_type="genomic DNA"

db_xref="taxon:10116"
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ne 2 clone RP11-31005,
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TITLE
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Sequencing vector: plasmid; 0%
Sequencing vector: plasmid; 0%
Chemistry: Dye-primer ET; 100% of reads
Chemistry: Dye-terminator Big Dye; 0% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 164946 bases at least Q40
Consensus quality: 164946 bases at least Q30
Consensus quality: 170270 bases at least Q20
Insert size: 173000; agarose-fp
Quality coverage: 4.09 in Q20 bases; agarose-fp
Quality coverage: 4.12 in Q20 bases; sum-of-contigs
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AC023124.3
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Single (08-FEB-2000) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St. MO 63108, USA
On Oct 20, 2000 this sequence version replaced gi:7622513.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center: Washington University Genome Sequencing Center Center code: WUGSC
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Waterston, R.H.
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13278: gap of un
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vector_side:right"
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/note="assembly_name:Contig9"
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146577. .149812
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116661. .146476
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29825. .40504
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/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="2"
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152544. .155619
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Information on performance of analysis and a more detailed annotation of this entry and other sequences of Chromosomes 3, 4 and 5 can be viewed at: http://www.mips.blochem.mpg.de/proj/thal/this fragment has an overlap with ATCHRIV76 at the 5' end and an overlap with ATCHRIV78 at the 3' end.
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Terryn, N., Ardiles, W., Buysshaert, C., Dasseville, R., De Clerck, R.,
De Keyser, A., Neyt, P., Rouze, P., Van Den Daele, H., Villaroel, R.,
Gielen, J., Van Montagu, M., Mewes, H.W., Lemcke, K. and Mayer, K.F.X.
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                                                                                     GIFLESNINSAFGEGFVTTQDSVTLFTLSIIHKSSTKLIWSANRASPVSNSDKFVFDDN
GNVMEGTEVWRLDNSGKNASRIELADSGNLVVVSUDGTSIWESFDHFTDTLITNQAF
KEGMKLTSS PSSSNMTYALEIKSGDMVLSVNSLTPQVVWSMANARERIINKDGGVVTS
KEGMKLTSS PSSSNMTYALEIKSGDMVLSVNSLTPQVVWSMANARERIINKDGGVVTS
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SSLLGNSWRFFDQKQVLIMQFVFSDNKDDNTTWIAVLGNNGYISFSNLGSGASAADSS
TKIPSDLCGTPEPCGPYYVCSGSKVCGCVSGLSRARSDCKTGITSPCKKTKDNATLPL
QLNSSGNCFLFDYIGSFKTSGNGGSGFVSYIKIASTOSGGGDNGEDDDKHFPVVIIN
QLNSSGNCFLFDYIGSFKTSGNGGSGFVSYIKIASTOSGGGDNGKHFPVVIIN
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NFSVKLGQGGFGSVYEGTLPDGSRLAVKKLEGIGQGKKEFRAEVSIIGSIHHLHLVRL
RGFCAEGAHRLLAYEFLSKGSLERWIFRKKKDGDVLLDWDTRFNIALGTAKGLAYLHED
                                                             VVTVFIIAVLIFVAFRIHKRKKMILEAPQESSEEDNFLENLSGMPIRFAYKDLQSATN
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/translation="MRGVFIVIVTCLVFLPDPLRAGVASIGSITPGFGGSQMNYINND
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nd annotation"
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.25876) AT4932330" AT4932330" CONTAINS EST 9b:A1997092.1, N37513, F19960" BEATT=1 t="putative protein" n id="CAB79950.1" f="GI:7270137" ation="MADULMNLWILSTCLFSFHVYYTMDPESIMAADGTDSAPAN ation="MADULMNLWILSTCLFSFHVYYTMDPESIMAADGTDSAPAN fERGAVSVETVDTTSESQNENSANSSTLDTIEHVKEAAEGTQVEHVDL KENGAVSVETVDTTSESQNENSANSSTLDTIEHVKEAAEGTQVEHVDL KENGAVSVETVDTTSESQNENSANSSTLDTIEHVKEAAEGTQNENVENGN KENGAUSVETVDTTSESQNENSANSSTLDTIEHVKEAAEGTQNENVENGN KENGAUSVETVDTTSESQNENSANSSTLDTIEHVKEAAEGTQNENVENGN KENGAUSVETVETTAGTON KENGAUSVETVETTAGTON KENGAUSVETTAGTON KENGAUSV	join(23201. 23258,2379924010,2409524400,2445324493, 2467724748.2486924965.2504825119.2516225314,	=5 .25876 PT46732330	/gene="nA4g32320"	/yelle- 11332220 /number=4 18730. 19139 /opo- 1787423200	/number=3 1861618729	1853718615 /gene="AT4g32320"	1845318536 /gene="h74932320"	"AT4g3	/number = 2 /number = 2 /number = 2	/number=1 1826318359 /mane="NT4G33320"	۱.۵۰	/number=1 /number=1 17384. 18262	ANNUML: 17383 1728117383 /Gene="MT4G33330"	/db xret="G1:7270136" /translation="MQNEIRKVVTKGKAAGVLRLVFHDAGTFELDDHSVSWADMI8VA /translation="MQNEIRKVVTKGKAAGVLRLVFHDAGTFELDDHSVSWADMI8VA GSEAVSICGGPTIFVVLGRLDSAQPDPEGKLPPETLSASGLKECFKRKGFSTQELVAL SCAHTIGSKGFGDPTVFDNAYYKILLEKPWTWVKRYAEDQDKFFEDFTNAYIKLVNSG	9959	/gene="AT4g32320" /note="similarity to various L-ascorbate peroxidases Contains Peroxidases signatures AA98-108;Peroxidases	/ Yelle 17393230 join(17281. 17383,1826318359,1845318536,1861618729, 1914019242)	17281 . 19242 17281 - 19242	15114 16442 /gene="hf/4g32300"	1498515113 /gene="AT4g32300" /number=1	ĭ ∌ .	NYAISEKSDVYSYGMVLLELIGGRKNYDÞSETSEKCHFPSFAFKKNEEGKLMDIVDGK MKNVDVTDERVQRAMKTALWCIQEDMQTRÞSMSKVVQMLEGVFÞVVQÞÞSSSTMGSRL YSSFFKSISEDGGATTSSGÞSDCNSENYLSAVRLSGÞR"

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                                                 Query Match 93.8%; Score 15; DB 8; Length 197252; Best Local Similarity 100.0%; Pred. No. 6.2e+02; Matches 15; Conservative 0; Mismatches 0; Indels 0
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Search completed: January 20, 2004, 17:15:05 Job time : 572.176 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw model
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                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                  Score
  14.4
14.4
14.4
14.4
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Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   January 20, 2004, 16:34:44 ; Search time 99.7647 Seconds (without alignments)
432.929 Million cell updates/sec
                                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N_Geneseq_19Jun03:*

1. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*

2. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

4. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

5. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*

6. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*

6. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*

7. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1987.DAT:*

7. /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1987.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-068-160-73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 actctggagcgttctc
93.8
93.8
93.8
90.0
90.0
90.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1993_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1996_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2000_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B_DAT: |
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2003_DAT: |
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/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1990.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1991.DAT:*
1125
1230
309400
16
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16
                                                                                                                                                                                                                                               Length
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                                                                                                                                                                                                                                                     ВB
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AAH68311
ABK85615
AAH68534
AAS09557
AAC80587
ABK46435
ABL35629
ABL35643
                                                                        C glutamicum codin
DNA encoding murin
C glutamicum codin
Immunoreactive CpG
Immunogenic CpG ol
                                                                                                                                                                                                                                                  Description
                                                   Immunostimulatory
                            Immunostimulatory
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arasitic infect	AAZ47610	21	20		14.4	5
Parasitic infectio	AAZ47609	21	20	ē	14.4	44
Parasitic infectio	AAZ47608	21	20		14.4	43
B-cell stimulating	AAZ48843	21	20		14.4	42
B-cell stimulating	AAZ48841	21	20		14.4	41
	AAZ60958	21	20	90.0	14.4	40
	AAZ60957	21	20		14.4	39
	AAZ60955	21	20	٥.	14.4	38
	AAZ60941	21	20	0	14.4	37
	AAZ60940	21	20	٥.	14.4	36
leotide :	AAZ60939	21	20	٥.	•	35
uva	4	21	20		٠	34
motif co	AAV72501	20	20		14.4	ü
12 se	AAZ41886	20	20		14.4	32
12 secretion	AAZ41883	20	20	٥.	14.4	3
12 secretion	AAZ41865	20	20	0	٠	30
12 secretion	AAZ41864	20	20	٥.	14.4	29
12 secretion	AAZ41863	20	20	٥.	14.4	28
IL-12 secretion in	AAZ41862	20	20	٥.	٠	27
Immunostimulatory	AAV27685	19	20	٥.	٠	26
Immunostimulatory	AAV27683	19	20		14.4	25
Immunostimulatory	ABL35669	24	19	0	•	24
Immunostimulatory	ABL35642	24	19	٥.	•	23
Immunostimulatory	ABL35628	24	19	0		22
Immunostimulatory	ABK46433	24	19	٥.		21
Immunogenic CpG ol	AAC80585	22	19	0		20
Immunoreactive CpG	AAS09555	22	19			19
Immunostimulatory	ABL38807	24	18			18
	2	24	18	0	•	17
Angiogenesis inhib	824	24	18		14.4	16
Immunogenic CpG ol	059	22	18		4.	5
Immunostimulatory	99	22	18		4.	14
Immunoreactive CpG	9	22	18		4	3
	644	24	17			12
Immunogenic CpG ol	8059	22	17		•	11
Immunoreactive CpG	S0956	22	17		14.4	10
Immunostimulatory	ABL35670	24	16	90.0	14.4	9

ALIGNMENTS

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	PI 1											80			ğ		×		×		×	ID	AAH68311/c
76931/40	Nakagawa S, Mizoguchi H, Ando S, Hayashi M, Ochiai K, Yokoi H; Tateishi N, Senoh A, Ikeda M, Ozaki A;	TALLOTT TO THE PARTY AND	(KYOW) KYOWA HAKKO KOCTOO KK	03-AUG-2000; 2000JP-0280988.	07-APR-2000; 2000JP-0159162.	16-DEC-1999; 99JP-0377484.	18-DEC-2000; 2000EP-0127688.	20-JUN-2001.	- + C	EP1108790-A2	•	Corynebacterium glutamicum.	organic acid synthesis; ds.	Coryneform bacterium; amino acid synthesis; vitamin; saccharide;		C glutamicum coding sequence fragment SEQ ID NO: 3346.		26-SEP-2001 (first entry)		AAH68311;		AAH68311 standard; DNA; 1125 BP.	311/c

P-PSDB; AAG93092

Claim

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N

CTCTGGAGCGTTCTC 16

Matches Query Match Best Local

Similarity

93.8%; but 100.0%; Pr

Score 15; Pred. No.

DB 22;

Mismatches

1.2e+02; hes 0;

Indels

Conservative

Sequence 1125 BP; 273 A; 355 C; 283 G;

214 T; 0 other;

Patent Office.

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RESULT 2
ABK85615/c
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                                                                                                                                                                                                                                                                   follicular cyst; Kaposi sarcoma; tumour; cancer; allergy; synovitis; respiratory distress; rheumatoid arthritis; pneumonia; thyroiditis; cartilage dysfunction; obesity; asthma; inflammation; hepatitis; glomerulonephritis; diabetic retinopathy; thyroiditis; nasal polyp;
Wasylyk B,
                                                                                                                                                                                                                                Mus
                                                                                                                                                                                                                                                                                                                    NET; mouse; gene; ds; ERP; SAP-1; angiogenesis; transgenic; ulcer; ischaemia; wound healing; vascular restcnosis; hypertension; dementia; alzheimer's disease; lymphoedema; atherosclerosis; haemangioma; bone; haemangioendothelioma; ovarian hyperstimulation; endometriosis; ascites;
                                                                                                                                                                                                                                                                                                                                                                                                               16-AUG-2002
                                                                                                                                          EP1202065-A1.
                                                                                                                                                                                                                                                          chromosome 10C-D1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABK85615
                                                                                       25-OCT-2000;
                                                                                                                 02-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding murine NET protein
                         (AVET ) AVENTIS PHARMA SA.
(INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                  ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; DNA; 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGGAGCGTTCTC 358
 Multon M,
                                                                                       2000EP-0402968
                                                              2000EP-0402968
                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                   /product= "Mouse NET protein"
 Ayadi A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В₽
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The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacteria are useful for producing amino acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mutation point of a gene, measuring expression of a gene, analysing expression profile or pattern of a gene and identifying homologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel polynucleotides derived from Coryneform bacteria, for identifying mutation point of a gene, measuring expression of a gene, analysing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; SEQ ID NO: 3346; 246pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1125;
                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                             ö
                                         This invention relates to the use of all or part of a NET (also known as CC ERP or SAP-1) polypeptide to identify compounds modulating angiogenesis CC or compounds that can be used to prevent or treat pathologies associated with angiogenic disorders. The invention also comprises transgenic canimals that bear mutations in the NET gene. The method and transgenic canimals of the invention are useful to identify compounds to treat pathologies associated with angiogenic disorders involving insufficient reasoularisation and requiring increased angiogenesis (e.g. cardiac/cc peripheral ischaemia, defects in wound healing and vascular restenosis, compounds increased vascularisation and requiring decreased covarian hyperstimulation, endometriosis, astina, heamangiona, heamangiona, heamangiona, cc ovarian hyperstimulation, endometriosis, astina, heamangiona, heamangiona, tumour cc growth and cancer, or other pathologies such as Kaposi sarcoma, tumour cc growth and cancer, or other pathologies in which NET is activated). CC such compounds may also be used to treat allergies, dysfunctional cuterine bleeding, respiratory distress, rheumatoid arthritis, bone and cartilage dysfunction, obesity, synovitis, inflammation, hepatitis, compounds modulating proteins or NET dominant negative mutants.

CC ompounds modulating NET activity may also be included in medicaments to prevent and/or treat pathologies associated with angiogenic disorders. CC The present sequence represents the DNA encoding the mouse NET protein is located on murine chromosome 10C-D1.
Use of all or part of a NET polypeptide to identify compounds useful to modulate angiogenesis and prevent or treat pathologies associated with angiogenic disorders e.g. cardiac ischaemia, atherosclerosis or tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-437317/47.
P-PSDB; AAU97931.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 36-39; 77pp;
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                                                                 S
                                                                                      Matches
                                                                                               Query Match
Best Local :
                                                                                                                           Sequence 1230 BP; 278 A; 415 C; 285
AAH68534 standard; DNA; 309400
                                                468
                                                                                     l Similarity
15; Conserv
                                                                 N
                                                                  CTCTGGAGCGTTCTC 16
                                                CTCTGGAGCGTTCTC
                                                                                     Conservative
                                                                                                100.0%;
                                                                                                         93.8%;
                                                454
                                                                                       0
                                                                                               Score 15;
Pred. No.
                                                                                       Mismatches
                                                                                                                           Ģ
                                                                                               DB 24; I
1.2e+02;
                                                                                                        Length 1230;
                                                                                        0
                                                                                       Gaps
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252 T; 0 other;

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RESULT 3
AAH68534
Coryneform bacterium; amino organic acid synthesis; ds.
16-DEC-1999;
             18-DEC-2000; 2000EP-0127688
                           20-JUN-2001.
                                                         Corynebacterium
                                                                                                           26-SEP-2001
                                                                                                                         AAH68534;
                                                                                            glutamicum
                                                                                            coding sequence fragment
                                                                                                           (first entry)
                                                        glutamicum
                                                                              acid synthesis; vitamin; saccharide;
                                                                                              SEQ ID
                                                                                              .
No
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RESULT 4
AAS09557
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacteria are useful for producing amino acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the European Patent Office.
                                                                                                                                                                                                                 FN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple solerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; A:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-APR-2000; 2000JP-0159162
03-AUG-2000; 2000JP-0280988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel polynucleotides derived from Coryneform bacteria, mutation point of a gene, measuring expression of a gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nakagawa S,
Tateishi N,
                               14-JAN-2000; 2000US-0176115.
                                                                12-JAN-2001; 2001WO-US01122
                                                                                                                                 WO200151500-A1
                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                    Immunoreactive CpG sequence-containing oligonucleotide #7
                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS09557 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-376931/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KYOW)
                                                                                                                                                                                                   Leishmania;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226316
                                                                                                                                                                                                                                                                                                                                 sequence; immune response; non-B cell activation; interferon gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            куома накко кобуо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309400 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       point of a gene, measuring expression of a gene, analysing on profile or pattern of a gene and identifying homologous gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTGGAGCGTTCTC 226330
                                                                                                                                                                                                  Ebola;
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO: 7069; 246pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mizoguchi H, Ando S, Hayashi M,
Senoh A, Ikeda M, Ozaki A;
                                                                                                                                                                                                   Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70133 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86477 C; 83115 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69675 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ochiai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 309400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for identifying
                                                                                                                                                                                                                     syndrome; AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yokoi
                                                                                                                                                                                                                                                                                                     infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
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CC nucleotides comprising multiple CpG sequences, where one of the CpG compared in the compared of the cpG sequences is different from another of the multiple CpG sequences.

CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon CC gamma (IPM-gamma) production or a humoral immune response involving B cc cell activation, antibody and interleukin-6 production in a host, for CC cancer, e.g. solid tumour cancer, a disease associated with the immune compared conduction of immune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cagainst hepatitis A, B and C, human immunodeficiency virus (HIV) and CC malaria, for treating immune system deficiencies, e.g. lupus crythematosus and autoimmune diseases such as rheumatoid arthritis and symptoms resulting from exposure of bio-warfare agent, including Ebola, interests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klinman
                                             Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-442129/47.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Verthelyi D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
G; 5 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10
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Matches
                                                                                          Query Match
Best Local
AAC80587 standard; DNA; 16 BP
                                              \vdash
                                                                                 15;
                                                                                          Similarity
                                                         ACTCTGGAGCGTTCTC
                                             ACTOTOGAGOGTTOTO 16
                                                                                 Conservative
                                                                                          90.0%;
93.8%;
                                                               16
                                                                                9
                                                                                          Score 14.4;
Pred. No. 1
                                                                                  Mismatches
                                                                                          DB 22;
                                                                                  Indels
                                                                                                  Length
                                                                                  ..
                                                                                 Gaps
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8

Sequence 16 BP; 2

A; 6

C; 3

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RESULT 5
AAC80527
ID AAC80
XX AAC80
XX AAC80
XX Inmu
DE Inmu
XX CpG
WW inmu
XX CpG
KW inmu
XX ceill
KW ceill
KW para
KW vacc
KW para
KW inmu
XX anti
                                                                                                                     14-FEB-2001
                                                                                                                      (first entry)
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Immunogenic

CpG oligodeoxynucleotide, SEQ ID NO:7.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural killer cell; NK cell activation; ell-mediated immune response; natural killer cell; NK cell activation; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autolamune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiaticpobial; antiallergic; protozoacide; tuberculostatic; Synthetic antiasthmatic; dermatological; phosphorothicate; protozoal;

(USSH) US DEPT HEALTH & HUMAN SERVICES.

19-OCT-2000

WO200061151-A2

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RESULT 6
ABK46435
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                                                                                                                                                                                                                                                                         CC (AAC80581-C8072). The oligonucleotide are at least 10 bases long cand comprise one of the generic sequences 5'-NNN'-C9G-WNN-3' or control of the generic sequences 5'-NNN'-C9G-WNN-3' or control of the generic sequences 5'-NNN'-C9G-WNN-3' or comprise one of the generic sequences 5'-NNN'-C9G-WNN-3' or comprise one trained, and the coligonucleotide of chem more resistant to degradation. The invention also relates to an coligonucleotide delivery complex comprising an oligonucleotide of the cinvention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5'-NNN'-C9G-WNN-3' being able to induce a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence coligonal presenting cells (e.g., macrophages and dendritic response. It is thought that after administration, induce a humoral cells on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural cells. The induction of natural cells (miles), which then release cytokines, leading to activation of natural cells (miles), or an infection, where an immunogenic CpG cells (miles) administration of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infections allergic remaining an allergic conditions cells in a deministrated either alone or in combination with an anticarial, food allergias and cher atopic conditions, and the infections such as tuberculosis, Albs, leishmania and cell-mediated protozoal infections such as tuberculosis, allergic remaining, and the cincarial, food allergical warfare. An immunogenic CpG oligonucleotide, either agent of biological warfare, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either coligonucleotide in preferably administered to lymphocytes avvivo, at the invention.
                                                                                                                                                                                  Query Match
Best Local S
                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klinman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 4; Page 25; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KLIN/)
                   ABK46435
                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                    15;
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ISHII K.
                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                      16
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             standard; DNA; 16
                                                                                                                        ACTCTGGAGCGTTCTC 16
                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ishii K,
                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US09839
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                                                                                                                                                                                  90.0%;
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                                                                                                                                                                                    Score 14.4;
Pred. No. 1.
                                                                                                                                                                                                                                      5 T; 0 other;
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                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bio-warfare agent
                                                                                                                                                                                     .8e+02;
                                                                                                                                                                                                       DB
                                                                                                                                                                                                   22:
                                                                                                                                                                                                     Length
                                                                                                                                                                                                       16;
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f
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immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene thera antiinflammatory; antibacterial; ss.

Immunostimulatory oligonucleotide SEQ ID NO:

04-APR-2002

(first entry)

DNA/RNA

hybrid;

phosphorothicate backbone; immunostimulatory;

infection;

allergy;

cancer;

hypersensitivity;

bio-warfare;

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RESULT 7
ABL35629
ID ABL35629
ID ABL35629
AC ABL3
XX
AC ABL2
XX
DT 04-F
DT 04-F
DT UMA
XX
DE Immu
XX
DB Immu
XX
KW DNA
XX
KW DNA
XX
KW DNA
XX
KW immu
XX
XX
XX
And

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention describes a vaccine comprising one or more epitopes of a paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond) -oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mond
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01-SEP-2000; 2000US-229307P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaccine for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-227118/28.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bronchopulmonary dysplasia; congenital heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABL35629 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; Page 7; 30pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200211761-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unmethylated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABK46435;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             γģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTCTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              represents an oligodideoxynucleotide that of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTOTOGAGOGITOTO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of Paramyxoviridae F protein, and cytos: phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B₽;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cpg;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US41633.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oligdideoxynucleotide; ODN; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unmethylated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       w
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Pred. No. 1.8e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               can be used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vaccine;
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RESULT 8
ABL35643
ID ABL3
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AC ABL3
XX
DT 04-A
XX
DT 04-A
XX
DE Immu
XX
DE Immu
XX
EW Limin
KW immi
KW immi
KW immi
KW immi
KW immi
KW immi
KW anti
XX
OS Synt
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                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to an immunostimulatory composition, which comprises at least one oligonuclectide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a bio-warfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is the immunostimulatory oligonucleotide described in the exemplification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or cytokines, particularly for treating diseases, e.g. cancer, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUN-2000; 2000US-209797P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                            vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare;
immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV;
immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy;
                                                                                                               DNA/RNA hybrid;
                                                                                                                                               Immunostimulatory oligonucleotide SEQ ID NO: 569.
                                                                                                                                                                                                                                               ABL35643 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 11; Page 62;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 2 A;
                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                               phosphorothicate backbone; immunostimulatory;
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/note= "optionally thymidine is replaced by uracil to
/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
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                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                      90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 C; 3 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                          Score 14.4; DB 24;
Pred. No. 1.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 T; 0 other;
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allergy or
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RESULT 9
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a bio-warfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification
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misc_RNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of the invention.
                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                           04-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL35670 standard;
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                                                                                                                                                    antiinflammatory; antibacterial;
                                                                                                                                                                                                                                                                      DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 11; Page 62; 68pp; English.
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                                                                                                                                                                                immunosuppressive; protozoacide;
                                                                                                                                                                                                                                             vaccine;
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                                                                                                                                                                            raccine; infection; allergy; cancer; hypersensitivity; bio-warfare;
.mmunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV;
.mmunosuppressive; protozoacide; virucide; hepatotropic; gene therapy;
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/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
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                                                                                                                                                                                                                                                                                                                              oligonucleotide SEQ ID NO: 596.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
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Pred. No. 1
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misc_RNA

Location/Qualifiers

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XX AASO9
AC AASO9
XX 26-SE
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XX CPG E
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XX LIFN-C
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XX SYnth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New immunostimulatory compositions comprising RNA/DNA hybrid oligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection
                                              lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndr
Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                            IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
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                                                                                                                                                                                                              Immunoreactive CpG sequence-containing oligonucleotide
                                                                                                                                                                                                                                                  26-SEP-2001
                                                                                                                                                                                                                                                                                                                AAS09564 standard; DNA; 17
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                                                                                                hepatitis; human immunodeficiency virus; HIV; malaria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the invention.
                                                                                                                                                                                 sequence; immune response; non-B cell activation;
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15; Conserv
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Synthetic

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CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cc cancer, e.g. antibody and interleukin-6 production in a host, for carting, preventing or ameliorating an allergic reaction, e.g. asthma, cc cancer, e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cagainst hepatitis A, B and C, human immunodeficiency virus (HIV) and cerythematosus and autoimmune diseases such as rheumatoid arthritis and cuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and complete resulting from exposure of bio-warfare agent, including Ebola, including
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Best Local (
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                    CpG oligodeoxymucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar
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parasitic;
rheumatoid
                                                                                                                                                                                                                                                                                                                                    14-FEB-2001
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                                                                                                                                                                                                                                                                     [mmunogenic
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15; Conserv
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                                                                                                                                                                                                                                                                  CpG oligodeoxynucleotide,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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Pred. No. 1
   autoimmune disease; lupus
sclerosis; solid tumour;
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                                                                     protozoal;
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oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AIDS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either calone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, of the present sequence represents an immunogenic CpG oligodeoxynucleotide of the present sequence represents an immunogenic CpG oligodeoxynucleotide.
                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG (preferably asthma), or an infection, where an immunogenic CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY'-CpG-RY'3' being able to induce a cell-mediated response, and those of the sequence 5'-RY'-CpG-RYNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide response.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
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(ISHI/) ISHII K.
    Local Similarity
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Score 14.4; DB 22;
Pred. No. 1.9e+02;
0; Mismatches 1;
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T;
                                                                                                                                                                   0 other;
                                                                               Length 17;
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RESULT 13
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ID AASO9
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AC AASO9
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AC AASO9

AAS09561 standard; DNA; 18

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26-SEP-2001 AAS09561;

(first entry)

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Matches Best

Local

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Conservative

٥,

Mismatches

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ACTCTCGAGCGTTCTC

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                     Query Match
                                                                                   The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond) -oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
                                                                                                                                                                                                                                                                                                                            Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                     Sequence 17 BP; 2 A; 6 C; 4 G; 5 T; 0 other;
                                                                                                                                                                                                                                                                                              Claim 4; Page 7; 30pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Mond JJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunostimulatory unmethylated CpG oligodideoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (JACK-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Prince G,
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90.0%;
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Score 14.4; DB 24;
Pred. No. 1.9e+02;
                 Length
                       17;
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Immunoreactive

CpG sequence-containing oligonucleotide #11.

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                                    S
                                                                                                                                                                                                                                                                             muleotides comprising multiple CpG sequences, where one of the CpG casequences is different from another of the multiple CpG sequences.

The ODN are useful for inducing an immune response, preferably a cell-cmediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune compared system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczena, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immundeficiency virus (HIV) and malaria, for treating immune system deficience, e.g. lupus erythematosus and autoimmune diseases such as freumatoid arthritis and carythematosus and autoimmune diseases such as freumatoid arthritis and
                                                                                                   Query Match
Best Local
                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CpG sequence; immune response; nour pour therleukin-6 production; ITR-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; corya; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; teishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                    multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-442129/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-JAN-2000; 2000US-0176115
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                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 5; Page 29; 48pp; English
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                                                                                Conservative
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                                                                              Score 14.4; DB 22;
Pred. No. 1.9e+02;
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RESULT 14 AAF99525

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Immunogenic CpG oligodeoxynucleotide,

SEQ ID NO:11

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RESULT 15
AAC80591
ID AAC80
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AC AAC80
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DE Immur
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                                                                                                                                                                                                                               Matches
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Best Local :
                                                                                                                                                                                                                                                                                                                                          immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or stappylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a figure of the present sequence can also be used to redirect a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Krieg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccinating against tumors, infectious diseases, allergies and using immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-SEP-1999; 99US-0156113
27-SEP-1999; 99US-0156135
23-AUG-2000; 2000US-0227436
                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        response. The method comprises administering an immunostimulatory acid to a non-rodent subject in sufficient quantity to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 101; Page 52; 338pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothicate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vaccine; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunostimulatory nucleic acid #641.
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                                          14-FEB-2001
                                                                                                   AAC80591 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                  Note: the present sequence may have a phosphorothioate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present
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                                                                                                                                                                                                                                                                                        BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       invention relates to a method for stimulating an immune
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                                            (first entry)
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nes 1;
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nucleic

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasicic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898.

(KLIN/) KLINMAN D. ISHII

(VERT/) VERTHELYI D

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent of.

Claim 4; Page 25; 46pp; English.

cc acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cartivation of f- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cipreferably asthma), or an infection, where an immune response is colligonucleotide is administered either alone or in combination with an cipreferably asthma), or an infection, where an immune genic cycle coligonucleotide is administered either alone or in combination with an cipreferably asthma), or an infections where an immunogenic cycle conditions which may be treated include eczema, allergic raintitis, hayfever, curticaria, food allergies and other atopic conditions, and the curticaria, food allergies and other atopic conditions, and the creatment of infections such as tuberculosis, AIDS, leishmania and comproved infections such as tuberculosis, AIDS, leishmania and comproved in autoimmune disorder (e.g., lupus crythematosus, curticaria, for an autoimmune disorder (e.g., lupus crythematosus, conditions system deficiency, and symmtoms resulting from exposure to an agent of biological warfare. An immunogenic Cpc oligonucleotide, either conditions or in combination with an anti-cancer agent, is useful for treating antivense therapy and to improve the efficacy of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, conditions which are then administered to the host. The conditions of the host immunocaria conditions and conditions which are then administered to the host. oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide response. The invention relates to novel immunogenic CDG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNY-CDG-WNNN-3' or 5'-RY-CDG-RY-3'. The central CDG motif is unmethylated, and the The present sequence of the invention. oligodeoxymucleotide

> SX X Sequence 18 BP; 2 A; 7 C; 4 G; 5 T; 0 other;

Matches Query Match Local Similarity 15; Conservative 90.0%; 0; Score 14.4; Pred. Mismatches ŏ. .9e+02; DB 22; Indels Length 18; 0;

Gaps

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Search completed: January 20, 2004, 17:31:48 Job time : 100.765 secs

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     seq length: 0
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Copyright (c) 1993 - 2004 Compugen Ltd
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US-08-386-063-8
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US-08-738-652-21
US-08-738-652-21
US-09-286-098-7
US-09-286-098-9
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1 AC	Match Local Simi es 15;	ATTORNEY AGENT ANAME ARNOLD REGISTRATION REFERENCE/DOC TELECOMMUNICATI TELEPHONE: (61 TELEFAX: (61 INFORMATION FOR SEQUENCE CHARAC LENGTH: 20 b TYPE: nuclei STRANDEDNESS: TOPOLOGY: 11 MOLECULE TYPE: MOLECULE TYPE:	STATE: WASSACHUSET COUNTRY: USA ZIP: 02109-1875 COMPUTER READABLE FOR MEDIUM TYPE: Flopp COMPUTER: IBM PC COPERATING SYSTEM: SOFTWARE: ASCII te CURRENT APPLICATION UMBER: FILING DATE: FILING DATE: FILING DATE: CLASSIFICATION: 42	1. 63-8 8, 2 1. 60 1. 60 1. ANT: OF I OF I OF I OF I OF I OF I		11111111111111111111111111111111111111
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ACTCTGGAGCGTTCTC ACTCTCGAGCGTTCTC	90. larity 93. Conservative	NAME: ARNOLD, BETH E. RAME: ARNOLD, BETH E. REGISTRATION NUMBER: 35,430 REFERENCE/DOCKET NUMBER: UITELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-790 TELEPHONE: (617)227-5941 FORMATION FOR SEQ ID NO: 8: SEQUENCE CHARACTERISTICS: LENGTH: 20 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: DNA -386-063-8	USET FOR FOR PC c M: T te ON D BER:	E S		1997 1997 10917 62804 20 20 20 20 20 20 20
TC 16	89.0	8 010	ETTS DRM: ppy disk ppy disk pcompatible pc-DOS/MS-D text DATA: D	I US/08386063 I. Krieg, M.D. IMMUNOMODUL 27 ISS: & COCKFIELD STREET, SUIT		₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩
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Patent No. 6194388
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Best Local Similarity
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CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
ANAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-
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APPLICANT: Arthur
                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 10:
                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: ASCII text
CURRINT APPLICATION DATA:
APPLICATION NUMBER: US/08/386,063
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUITI
                                                                                                                                                                                                                                   APPLICANT: Arthur M. Krieg, M.D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
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                                                                                                                                                                                                                   TUMBER OF SEQUENCES:
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OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
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APPLICATION DATA:
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                                                                                                                                 MASSACHUSETTS
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60 STATE STREET, SUITE 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : (617)227-7400
(617)227-5941
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                  SUITE 510
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Pred. No. 2
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                              US-08-386-063-10
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Patent No. 6194388
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Best Local Similarity
Query Match
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                  TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION: (617)227-7400
                                                                                                                                                                                                                                  REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: U11
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
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MEDIUM TYPE: Floppy disk
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                                                                                                        MOLECULE TYPE:
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NAME: ARNOLD, BETH E.
                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA: APPLICATION NUMBER: US,
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NUMBER OF SEQUENCES:
                                                                                             FEATURE:
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7TD: 02109-1875
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STREET:
BOSTON
MASSA
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                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                              OTHER INFORMATION: "N indicates 5 methyl cytosine"
                                                                        NAME/KEY: misc_feature
                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
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                                                                                                                          TOPOLOGY:
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DEDNESS: single
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60 STATE STREET, SUIT
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Pred. No. 22;
0; Mismatches
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 Score 14.4;
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   Length 20;
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Best Local Similarity 93.8%;
Matches 15; Conservative
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CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
                                                                                                                                                                                                                                                                      EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/08/738,652B CURRENT FILING DATE: 1996-10-30
                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: C1039/7004 HCL
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TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
                                                                               NAME/KEY: modified base LOCATION: (3)...(3) OTHER INFORMATION: m5c FEATURE:
                                                                                                                                           FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
                                                                                                                                                                            TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
NAME/KEY: modified_base
                                 OTHER INFORMATION: m5c
                                                NAME/KEY: modified_base LOCATION: (10)...(10)
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5. 6207646
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0; Mismatches
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OTHER INFORMATION: Synthetic oligonucleotide
PEATURE:
NAME/KEY: modified base
LOCATION: (3)...(3)
OTHER INFORMATION: m5c
US-08-738-652-20
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US-08-738-652-20
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                                                                                                                                                                                                                                                                                                                                      US-08-738-652-21
                                                                                                                                                                                                                                                                                   Patent No. 6207646
GENERAL INFORMATION:
                                                                             SEQ ID NO 21
LENGTH: 20
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LENGTH: 20
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Best Local Similarity
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Best Local :
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                                                                                                                                        NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                               SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                              NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Artificial Sequence
                FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
                                            ORGANISM: Artificial Sequence
                                                                TYPE: DNA
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Similarity 93.8%;
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Pred. No. 22;
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Pred. No. 2
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Matches
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Best Local
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
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                                                                                                        SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 8
LENGTH: 20
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LENGTH: 20
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APPLICANT: Weiner, George
TITLE OF INVENTION: methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REPERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: U5/09/286,098
CURRENT APPLICATION NUMBER: U5 60/080,729
EARLIER APPLICATION NUMBER: U5 60/080,729
EARLIER APPLICATION NUMBER: U5 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
NUMBER OF SEQ ID NOS: 105
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CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Methods and Products for Stimulating the TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and TITLE OF INVENTION: Cytokines FILE REFERENCE: C1039/7026/HCL
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SOFTWARE: FastSEQ for Windows Version 3.0
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LOCATION: (18)...(18)
OTHER INFORMATION: m5c
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ORGANISM: SArtificial Sequence
FEATURE:
                                                                                             TYPE: DNA
                                                                       ORGANISM: Artificial Sequence
NAME/KEY: modified_base
                                    OTHER INFORMATION: Synthetic Sequence
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Local Similarity 93.8%;
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Pred. No. 22
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Pred. No. 22;
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; FEATURE:
; NAME/KEY: modified base
; LOCATION: (3)...(3)
; OTHER INFORMATION: m5c
US-09-286-098-9
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US-09-286-098-10
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SEQ ID NO 9
LENCTH: 20
TYPE: DNA
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Best Local Similarity
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APPLICANT: Weiner, George
TITLE OP INVENTION: Wethods and Products for Stimulating the
TITLE OP INVENTION: Methods and Products for Stimulating the
TITLE OP INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OP INVENTION: Oytokines
FILE REPERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
            APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OP INVENTION: Methods and Products for Stimulating
TITLE OP INVENTION: Immune System Using Immunotherapeutic
TITLE OP INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
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EARLIER APPLICATION NUMBER: US 60/080,729
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OTHER INFORMATION: m5c
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Pred. No. 22;
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Pred. No. 2;
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RESULT 14
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APPLICANT: Krieg, Arthur M.

APPLICANT: Krieg, Arthur M.

APPLICANT: Weiner, George

TITLE OF INVENTION: Methods and Products for Stimulating the

TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and

TITLE OF INVENTION: Cytokines

FILE REFERENCE: Cl039/7026/HCL

CURRENT APPLICATION NUMBER: US/09/286,098

; CURRENT FILING DATE: 1999-04-02

EARLIER APPLICATION NUMBER: US 60/080,729
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SOFTWARE: FRANKSEQ for Windows Version 3.0
SEQ ID NO 10
LENGTH: 20
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Best Local
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LENGTH: 20
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
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EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
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FILE REFERENCE: C1039/7026/HCL
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ORGANISM: Artificial Sequence
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Pred. No. 2:
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Pred. No. 2
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US-08-960-774-15
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                             Matches
                                         Query Match
Best Local Similarity
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 6239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: modified base LOCATION: (14)...(14) OTHER INFORMATION: m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                           FILING DATE: 30-October-1997
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116
FILING DATE: October 30, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                         NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE, DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/96
FILING DATE: 30-October-1997
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""ATE: CA
""CA
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                       SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
                                                                                                              TYPE: nucleic
STRANDEDNESS:
TOPOLOGY: lin
                                                                                                                                                                                                    TELEFAX:
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                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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                                                                                                                                      1: 20 base pairs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
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93.8%;
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Pred. No. 22
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Pred. No. 2
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Search completed: January 20, 2004, 17:17:11 Job time : 27.3529 secs

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Minimum DB seq length: 0
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                   Match
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1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
5: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
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Listing first 45 summaries
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/cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
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             US-10-194-035-7
US-10-068-160-9
US-10-194-035-14
US-09-888-326-188
US-09-776-479-724
US-10-194-035-11
US-10-112-633-697
US-10-107-995-724
US-10-194-035-5
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US-10-194-035-5
US-10-194-035-5
US-10-194-035-5
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US-10-068-160-73
US-09-738-626-3346
US-09-738-626-1
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           Sequence 113, App
Sequence 3, Appl
Sequence 3, Appli
Sequence 1, Appli
Sequence 7, Appli
Sequence 9, Appli
Sequence 14, Appl
Sequence 118, Appl
Sequence 724, Appl
Sequence 11, Appl
Sequence 697, App
Sequence 724, Appl
Sequence 724, Appl
Sequence 5, Appli
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-09-888-326-1	-09-888-326-9	-09-888-326-9	-09-415-142-	-09-415-	-09-9	0-313-	-09-920-313-3	-09-920-313-	-09-920-313-	US-09-920-313-8	US-09-920-313-7	US-09-895-007A-34	US-09-895-007A-33	US-09-895-007A-31	US-09-895-007A-9	-09-895-	US-09-895-007A-7	US-09-846-091-5	US-09-800-266A-34	US-09-800-266A-33	-09-800-266A-	-09-800-266A-	-09-800-	US-09-800-266A-7	US-09-824-468-40	•	-468-	-09-824-468-	US-09-824-468-8
e 102,	e 92	e 91	e 10,	e 8,	Ø	e 34,	Sequence 33, Appl	e 31,	е9,	e 8,	e 7,	34,	O	e 31,	e 9,	e 8,	e 7,	e 5	æ	e 33,	31	,		e 7,	40,	37,	e 10,	e 9,	Sequence 8, Appli

ALIGNMENTS

PRIOR APPLICATION NUMBER: PCT/US01/01122

PRIOR FILING DATE: 2001-07-12

PRIOR APPLICATION NUMBER: PCT/US01/01122

PRIOR APPLICATION NUMBER: US 60/176,115

PRIOR FILING DATE: 2000-01-14

NUMBER OF SEQ ID NOS: 119

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 113

LENGTH: 16

TYPE: DNA

ORGANISM: Artificial Sequence
FEATURE:
COMMENT TIMESTANDERS

ORGANISM: Artificial Sequence 밁 S ; OTHER INFORMATION: Description of Artificial Sequence: US-10-194-035-113 RESULT 1 US-10-194-035-113 Sequence 113, Application US/10194035
Publication NO. US20030144229A1
GEMERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KILINMAN, Dennis
APPLICANT: ISHI, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYMUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RES
FILE REPRENUE: 4239-6317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12 Matches Query Match Best Local S 16; 1 ACTCTGGAGCGTTCTC 16 Similarity ACTCTGGAGCGTTCTC 16 Conservative 100.0%; o, Score 16; DB Pred. No. 35; 0; Mismatches 35; 13; 0; USE TO INDUCE AN IMMUNE RESPONSE Length 16; Indels Synthetic <u>,</u> Gaps 0 THE

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                                                                                                                                                                       SOFTWARE: PatentIn ver.
SEQ ID NO 3346
LENGTH: 1125
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SEQ ID NO 73
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                                                         Matches
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                                                                                                                       TYPE: DNA
ORGANISM: Corynebacterium glutamicum
-09-738-626-3346
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Best Local Similarity
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                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/128,898 PRIOR FILING DATE: 1999-04-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: NAKAGAWA, SATOSHI
APPLICANT: MIZOGUCHI, HIROSHI
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                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 7059
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ORGANISM: Artificial Sequence
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                                                       l Similarity
                                                                                                                                                                                                                                                                                                                                                                                                         INVENTION: NOVEL POLYNUCLEOTIDES
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CTCTGGAGCGTTCTC 16
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YOKOI, HARUHIKO
TATEISHI, NAOKO
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100.0%; Pred. No.
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Pred. No. 35;
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US-10-194-035-7
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CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-7
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Matches 15; Conserva
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                                                                                                            SEQ ID NO 7
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                                                                                                                                                                                                  APPLICANT: VERTHELYI, Daniela
TITLE OF INVERTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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APPLICANT: OZAKI, AKIO
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
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NUMBER OF SEQ ID NOS: 7059
                                                                                                                           SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                            NUMBER OF SEQ ID NOS: 119
                                                                                                                                                              PRIOR APPLICATION NUMBER: US 60/176,115 PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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                                                  TYPE: DNA
ORGANISM: Artificial Sequence
                                FEATURE:
                                                                                          ENGTH: 16
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TATEISHI, NAOKO
SENOH, AKIHIRO
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OCHIAI, KEIKO
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ANDO, SEIKO
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Publication No. US20030144229A1
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                                                                                                                                       SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 14
LENGTH: 17
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Query Match
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 423-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
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NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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NUMBER OF SEQ ID NOS: 120
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                        FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
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Pred. No. 2.7e+02;
Score 14.4;
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DB 13;
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Length 17;
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APPLICANT: Bratzler, Robert L.

APPLICANT: Petersen, Deanna M.

APPLICANT: Pouron, Yves

ITILE OF INVENTION: Immunostimulatory Nucleic Acids for the

ITITLE OF INVENTION: Treatment of Asthma and Allergy

FILE REFERENCE: C1037/7013 (HCL/MAT)

CURRENT APPLICATION NUMBER: US/09/776,479

CURRENT FILING DATE: 2001-02-02

PRIOR APPLICATION NUMBER: US 60/179,991

PRIOR APPLICANTE: 2000-02-03

NUMBER OF SEQ ID NOS: 1093

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH. 18
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                                                                                             ; OTHER INFORMATION: Synthetic Sequence US-09-776-479-724
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 188
LENGTH: 18
TYPE: DNA
  Query Match 90.
Best Local Similarity 93.
Matches 15; Conservative
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Publication No.
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Matches 15; Conservat
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APPLICANT: Hartmann, Gunther
ITILE OF INVENTION: Methods for Enhancing Antibody-Induced
ITILE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
PRIOR FILING DATE: 2000-06-22
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Publication No.
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LOCATION: (0)...(0)
OTHER INFORMATION: phosphodiester backbone
                                                                                                                                      TYPE: DNA
TYPE: DNA
ORGANIEM: Artificial Sequence
FEATURE:
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o. US20030087848A1
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90.0%; Score 14.4; DB 11
93.8%; Pred. No. 2.7e+02;
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Pred. No. 2.7e+02;
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RESULT 11
US-10-112-653-697
; Sequence 697, Application US/10112653
; Publication No. US20030050268A1
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US-10-194-035-11
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APPLICANT: Krieg, Arthur M.
APPLICANT: Berg, Daniel J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 11, Application US/10194035
Publication No. US20030144229A1
                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version SEQ ID NO 697
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                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES FILE REFERENCE: C01039/70060(AWS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 11
LENGTH: 18
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CURRENT FILING DATE: 2002-07-12
CURRENT PELICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: DCT/19
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/112,653
CURRENT FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/279,642
PRIOR FILING DATE: 2001-03-29
                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 1040
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                           OTHER INFORMATION: Synthetic Oligonucleotide
                                                                                                                                                                            ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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                                                                                      90.0%; Score 14.4; DB 15; 93.8%; Pred. No. 2.7e+02;
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Pred. No. 2.7e+02;
                                                                       Mismatches
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OF HEALTH
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US-10-194-035-5
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US-10-017-995-724
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Publication No. US20030055014A1
GENERRAL INFORMATION:
APPLICANT: Bratzler, Robert L.
TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
FILE REFERENCE: C1037/7025 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/10/017,995
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: US 60/255,534
PRIOR PILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 1093
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Matches
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SEQ ID NO 724
SECURIA: 18
TYPE: DNA
                                                                 Matches
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SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 5
LENGTH: 19
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                                                                                                  Query Match
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Best Local
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: THE GOVERNMENT OF THE UNITED APPLICANT: SECRETARY OF THE DEPARTMENT APPLICANT: KLINMAN, Dennis APPLICANT: ISHI, Ken APPLICANT: VERTHELYI, Daniela
                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/176,115 PRIOR FILING DATE: 2000-01-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE: OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
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Pred. No. 2.7e
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Pred. No. 2.7e+02;
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RESULT 14 US-10-068-160-8 ; Sequence 8, Application US/10068160

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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT PREPLICATION NUMBER: US/09/824,468
CURRENT FILING DATE: 2001-04-02
FRIOR FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 105
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 7
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
FORTHARD: Synthetic Sequence
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Search completed: January 20, 2004, 17:24:40 Job time: 110.882 secs
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-8
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 8
TENEMENT 10
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Matches 15; Conserv
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ORGANISM: Artificial Sequence
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PPLICANT: KLIMMAN, Dennis
PPLICANT: ISHII, Ken
PPLICANT: VERTHELYI, Daniela
ITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
ILE REFERENCE: 4239-61999
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AA063658	W62184	BG544490	7943	CB771429	BY691081	AL841666	AI478296	BH362657	BQ791558	AZ260811	N22914	BY106539	D59115	CD345249	CA748391	AL840593	AU257096	BF561461	CB884492	BU993490	AT002309	B81058	BQ311300	BE389805 .	BQ921588	BG169117	B0652192	BZ005611	B7905475	BU106109	BH501/62	74	BI344753	E01328	0583	0575	367384	14164	AQ526058
AA063658 ESTM186F	184	444	94310	CB771429 AMGNNUC:T	691081	AL841666 AL841666	78296	BH362657 CH230-48C	BQ791558 E3220 Chi	AZ260811 RPCI-23-1	. N22914 yx66g01.s1	BY106539 BY106539	JM522B03	EtESTef8	NS EST	AL84059		•	Ma1072	_	ATOO:	81058 C	PM4.	E389805 601;	1588 AGEI	Ğ169117	0652192	BZ005611 oek65f04.	PUPPLI	•	ROHHOR	373307	44753	13283	05835	05752 HS1_18_	MRO-HTO	AZ141640 SP 0045 A	HS 5309

ALIGNMENTS

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FEATURES	COMMEN :	JOURNAL	REFERENCE	VERSION . KEYWORDS SOURCE ORGANISM	RESULT 1 BE972956/c LOCUS DEFINITION ACCESSION
DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLCM777 row: o column: 01. Location/Qualifiers	CONTACT: KODETT STRAUSDERG, Fn.D. Email: cgapbe-remail.nih.gov Tissue Procurement: CLONETECH Laboratories, Inc. cDNA Library Preparation: CLONETECH Laboratories, Inc. cDNA Library Preparation: CLONETECH Laboratories, Inc.	National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished	<pre>Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 948) NIH-MGC http://mdc.nci.nih.gov/.</pre>	BE972956.1 GI:10586292 BST Homo sapiens (human) Homo sapiens	BE972956 948 bp mRNA linear EST 04-OCT-2000 601651808R2 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935448 3', BE972956

Result No.

Score

Query Match Length DB ID Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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100.0 93.8 93.8 93.8

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10 BE972956 14 CA778499 9 AI401438 28 AQ472178

EB972956 601651808 CA778499 MPL384_9 AI401438 tg64a08.x AQ472178 CITBI-E1-

Description

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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                    Michigan State University
B215 Anthony Hall, East Lansing, MI 48824, USA
Tel: 517 355 8443
Fax: 517 432 9168
Email: suchytas@msu.edu
Single Pass sequencing. Bases called and alt-trimmed with phred
v0.0204425.c. Vector identified by cross_match with the -minscore
20 -minmatch 12 options.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center for Animal Functional Genomics.
Generation of ESTs from mixed pig cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sus scrofa (pig)
Sus scrofa
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EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Steven P. Suchyta
Center for Animal Functional Genomics, Department of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
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/notes Torgan: pooled; Vector: pSPORT1; Site 1: Not1; Site 2: Sal1; Library made from pooled tissue from adipose adrenal gland, blood leukocytes, brain, cartilage, eye, heart, intestine, kidney, liver, lung lymph nodes, mammary gland, myogenic satellite cells, ovary, pancreas, pituitary gland, placenta, skin, spinal cord, spleen, stomach, tendon, testes, uterus, and vascular from various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C, or G and N = A, C, G, or T). Average insert size 1.35 kb (range 0.9-4.0 kb). 14/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palo Alto, CA)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sfil (ggccgctcggcc); Site 2: Sfil (ggccattatggcc); 5' and 3' adaptors were used in cloning as follows: 5' adaptor sequence: 5'-CACGGCCATTATGGCC3' and 3' adaptor sequence: 5'-ATTCTAGAGGCCGAGGCGGCGACATG-dT(30)BN-3' (where B = A, C, or G and N = A, C, G, or T). Average insert size
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/clone="IMAGE:3935448"
/lab host="DHIOB (TI bhage-resistant)"
/clone_lib="NIH MGC_82"
/clone="Organ: testis, Vector: pDNR-LIB (Clontech); Site 1:
/note="Organ: testis, Vector: pDNR-LIB (Clontech); Site 1:
                                                                                                                                                   /tissue_type="pooled"
/dev_stage="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                         /organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
/clone="pSPORT1"
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/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                   clone/
                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                        sex="Male and female"
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Insert Length: 1814 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, |
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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                                          CTCTGGAGCGTTCTC 16
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CTCTGGAGCGTTCTC 352
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                                                                                      Conservative
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                                                                                                                                                                                             /clone lib="Soares NhHMPu S1"
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
/(Pharmacia) with a modified polylinker; Site 1: Not I;
Site 2: Eco RI; Equal amounts of plasmid DNA from three
normalized libraries (melanocyte 2NbHM, pregnant uterus
NbHPU, and fetal heart NbHH19W) were mixed, and ss circles
were made in vitro. Following HAP purification, this DNA
was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from pools of
5,000 clones made from the same 3 libraries. The pools
consisted of I.M.A.G. E. clones 260232-265223,
340488-345479, and 484488-489479."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2113526"
/tissue_type="Pooled human melanocyte, fetal heart, and pregnant uterus"
/lab_host="DH10B"
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a 55 c 64 g 46 t
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                                                                               93.8%; 500
100.0%; Pr
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                                                                                      Score 15; DB; Pred. No. 2.6
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Pred. No.
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2.6e+03;
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sapiens cDNA clor
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IMAGE:2113526
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                                                                                                                                                             AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq primer: M13 Reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD
Contact: Mahairas GG, Wallace JC, High Throughput Sequencing Center
                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 480)

Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T., Mahairas,G.G., Wallace,J.C., Young,J., Zhao,S., Adams,M.D. au
                                                                                                                                                                                                                                                                    AQ526058.1 GI:4773378 GSS.
                                                                                                                                                                                                                                                                                                                    AQ526058 480 bp DNA linear GSS 11-MAY
HS_5309_B1_A12_T7A RPCI-11 Human Male BAC Library Homo sapiens
genomic clone Plate=885 Col=23 Row=B, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                end search page:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: hbe@tigr.org
Clones are available from Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Shaying Zhao, William Nierman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Venter, J.C.
Use of BAC End Sequences from Callech Libraries for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 445)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AQ472178.1 GI:4655832
GSS.
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AQ472178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITBI-E1-2589E3.TR CITBI-E1 Homo sapiens genomic clone 2589E3,
                                                                                                         Sequence-tagged connectors: A sequence approach to mapping
                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                       AQ526058
                                    10449764
                                                                                      scanning the
                                                                                                                                                                                                                                                domo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S., Adams, M.D., Nierman, W., Malek, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
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                                                                    Natl. Acad. Sci. U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cell_type="sperm"
/clone lib="CITBI-E1"
/clone lib="CITBI-E1"
/note="Vector: pBeloBAC11; Site_1:
/note="Vector: pBeloBAC11; Site_1:
CalTech Human BAC Library D"
a 83 c 118 g 107 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="2589E3"
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b; Pred. No. 2.6
0; Mismatches
                                                                      96 (17),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.6e+03;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 28;
                    Hood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genetics (info@resgen.com).
                                                                        9739-9744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mark Adams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 445;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EcoRI; Site
                                                                        (1999)
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                                                                                                         and
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ORGANISM
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VERSION
KEYWORDS
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AZ141640
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                                                                                                                                                                                                            JOURNAL
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3618
Fax: (206) 616-3887
Email: jwallace@u.washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
library availability, please contact Pieter de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Web Server:
http://www.htsc.washington.edu
Plate: 885 row: B column: 23
                                                           Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
Tel: (626) 395-8421
Fax: (626) 793-3047
                                                                                                                                                                                                                                                                                                         1 (bases 1 to 495)
Cameron,R.A., Mahairas,G., Rast,J.P., Martinez,P., Biondi,T.R., Swartzell,S., Wallace,J.C., Poustka,A.J., Livingston,B.T., Wray,G.A., Ettensohn,C.A., Lehrach,H., Britten,R.J, Davidson,E.H. ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A2141640 495 bp DNA linear GSS 28-AUG-: SP_0045_A1_C04_SP6E Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=45 Col=7 Row=E, genomic survey sequence.
                                                                                                                                                                                                            additional resources
Proc. Natl. Acad. Sc
20402566
                                                                                                                                                                                                                                                                                                                                                                                                                                           Strongylocentrotus purpuratus Eleutherozoa; Echinozoa; Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
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Class: BAC ends
                   Email: acameron@caltech.edu
Plate: 45 row: E column: '
                                                                                                                                                                     Contact: Cameron,
                                                                                                                                                                                           10920195
                                                                                                                                                                                                                                                                                                                                                                                                     Strongylocentrotidae; Strongylocentrotus.
                                                                                                                                                                                                                                                                                                                                                                                                                         Echinoidea; Euechinoidea; Echinacea; Echinoida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AZ141640.1 GI:8293543
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primer:
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Vector: pBACe3.6; Site 1: EcoRI; Site 2: EcoRI; Male blood DNA was isolated from one randomly chosen do and partially digested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at EcoRI sites" 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone_lib="RPCI-11 Human Male BAC Library"
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/db_xref="taxon:9606"
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                                                                                                                                                                  RA, Davidson,
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                                                                                                                                                                                                                                Sci. U.S.A. 97
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; Pred. No. 2.70
0; Mismatches
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2.7e+0
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AUTHORS
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ORGANISM
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ACCESSION
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ORIGIN
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Best Local
Best Local Similarity
               Query Match
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AW367384.1
EST.
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High qualit
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1, to 508)
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The FAPESP/LICR Human Cancer Genome Pi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AW367384 508 bp mRNA linear
MRO-HT0164-191099-002-a04 HT0164 Homo sapiens cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer: puc 18 forward
                                                                                                                                                                                                                                                                                                                                                                                                                      (http://www.ludwig.org.br/scripts/gethtml2.pl?t1=MR0&t2=MR0-HT0164-
191099-002-a04&t3=1999-10-19&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114
                                                                           119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           quality sequence stop: 495
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                         quality sequence start: 8 quality sequence stop: 507. Location/Qualifiers
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                                             /dev_stage="Adduct"
/clone lib="MT0164"
/clone lib="MT0164"
/clone lib="MT0164"
/note="Togran: head neck; Vector: puc18; Site_1: Smal;
/note="Togran: head neck; Vector: was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."

10 stringency conditions."

11 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Organ: Sperm; Vector: BACe3.6; BAC Clones in E-Coli
                                                                                                                                                                                                                                 /mol_type="usur:
/db_xref="taxon:9606"
/dev_stage="Adult"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                  organism="Homo sapiens"

ol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Strongylocentrotus purpuratus, purple sea
urchin, sperm genomic BAC library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Strongylocentrotus purpuratus"
|mol_type="genomic DNA"
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clone="Plate=45 Col=7 Row=E"
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100.0%;
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DB 9; Li
2.7e+03;
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                 Length 508;
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RESULT 8
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                                             N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: mmpratt@uga.edu Dr. Yutaka Suzuki and Dr. Sumio Sugano in Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in the Human Genome Center, University of Tokyo Institute of Medical Science, plant material and RNA prepared at Texas A & M University; sequencing done in the Laboratory for Genomics and Bioinformatics, University of Georgia. Sequence ends have been trimmed to exclude vector and regions below Phree quality 16. Three-prime sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Laboratory for Genomics and Bioinformatics The University of Georgia, Department of Plant Biology Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, Tel: 706 542 1860 Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
Other_ESTs: HS1_18_E02.g1_A012
Contact: Cordonnier-Pratt MM
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopeida; Poales; Poaceae; PACCAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CD205752 521 bp mRNA linear EST 20-MAY HS1 18 E02.bl A012 Heat-shocked seedlings Sorghum bicolor cDNA clone HS1 18 E02_A012 3', mRNA sequence.

CD205752 CD205752
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,R.R., Liang,C., Sun,F., Sullivan,R., Shah,M., Buchan
Bastman,A. and Pratt,L.H.
An EST database from Sorghum: heat-shocked seedlings
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1 (bases 1 to 521)
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  CTCTGGAGCGTTCTC 349
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                                                                                          Conservative
                                                                                                                                                                                                                                               /clone="HS1 18_E02_A012"
/lab host="PH10B-T1 phage-resistant E. coli"
/lab host="PH10B-T1 phage-resistant E. coli"
/clone lib="Heat-shocked seedlings"
/note="Vector: pME18S-FL3; Site_1: XhoI; Site_2: XhoI; The library was prepared from polyA+ RNA from 6-day-old seedlings grown in hydroponic culture and heat-shocked at 40-42 C for 4 or 24 hr. After heat shock, roots and leaves were harvested and tissues combined for RNA isolation. Double-stranded cDNA was cloned unidirectionally into different DraIII sites of the pME18S-FL3 vector (5-prime praIII site is CACTGTGTG, 3-prime DraIII site is CACCATGTGTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Sorghum bicolor"
/mol_type="mRNA"
/cultivar="IS3620C"
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                                                                                     Score 15; DB 14; 1; Pred. No. 2.7e+03; 0; Mismatches 0;
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                                                                                                                                    Length 521;
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Buchanan, C.D.,
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                                                                                                                                                                                                                                                                                                                                                                                                       236
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transgenic cell line was obtained by transformation with the T-DNA
of ppCV6NFHyg Agrobacterium binary vector; the left border junction
of T-DNA insertion 3322e1 was isolated in E. coli after EcoRI
digestion and self-circularization of plant DNA; clone 3322e1
carries a plant DNA fragment of 6.4 kb that extends from an EcoRI
site to the left-border junction of pPCV6NFHyg T-DNA tag; sequences
of the left T-DNA border are excluded from the submission
Class: transposon-tagged.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mathur,J., Szabados,L., Schaefer,S., Grunenberg,B., Lossow,A., Jonas-Straube,E., Schell,J., Konzz,C. and Koncz-Kalman,Z. Gene identification with sequenced T-DNA tags generated by transformation of Arabidopsis cell suspension Plant J. 13 (5), 707-716 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arabidopsis thaliana
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 544)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 555)

Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Vallet, J., Wise, T., Rohrer, G.A., Pertea, G., Sultana, R., Quackenbush, J. and Keele, J.W.

Porcine gene discovery by normalized cDNA-library sequencing and
                                                                                                                                                                                                                                          BE013283 555 bp
123182 MARC 1PIG Sus scrofa cDNA
BE013283
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                                                                                                                                                   Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                   EST
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/cultivar="Col-1"
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5 c 77 g 210 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             555 bp mRNA
373312 MARC 2PIG Sus scrofa cDNA 5', mRN
B1344753
                                                                   Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscor
                                                                                                                          USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, US
Tel: 402 762 4356
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 555)
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Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
Single pass sequencing. Bases called and alt_trimmed with phred
Single pass sequencing. Bases called and alt_trimmed with phred
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USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
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12226715
                                                                                                                                                                                                                                                       Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly Mamm. Genome 13 (8), 475-478 (2002)
                                                                                                                                                                                                                                                                                                                        Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., Whi
Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa
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Seq primer: ATTTAGGTGACACTATAG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 402 762 4366
Fax: 402 762 4390
FORWARD: AGGAAACAGCTATGACCAT BACKWARD: GTTTTCCCAGTCACGACG
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                                PCR PRimers
                                                   and -minmatch 12 options.
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/clone_lib="MARC IPIG"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
/note="Vector: pcmv sport6; site_1 notI; Site_2: SalI;
/note="Vector: pcmv sport6; site_1 notI; Site_2: SalI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="pooled"
/lab_host="DH10B"
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/mol_type="mRNA"

/db_xref="taxon:9823"
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373307 MARC
BI344749
                                                                                                                                                                                                                                                                                                                                                                    Contact: Smith TPL USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, US Tel: 402 762 4366
Fax: 402 762 4390
Email: smith@email.marc.usda.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 561)
Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,J., and Keele,J.W.
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                                                                                                                                                                                                                             POR PRIMETS
FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
Plate: 120 row: K column: 4
Seq primer: ATTTAGCTGACACTATAG
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larity 100.0%; Pred. No. 2.7e+03
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                                                                                                      /organism="Sus scrofa"
/mol type="mRNA"
/db_xref="taxon:9823"
/tissue type="pooled"
/lab_host="DH10B"
              /clone lib="MARC 2PIG"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
/instrary made from pooled tissue from testis, ovary,
Library made from pooled tissue from testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
a 184 c 160 g 93 t
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167 C 134 g 110 t 2 others
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/lab_host="DH10B"
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/mol_type="mRNA"
/db_xref="taxon:9823"
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Sus scrofa cDNA
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Sus.
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Town, C.D., Van Aken, S., Utterback, T., Koo, H. and Fraser, C.M. Whole genome shotgun sequencing of Brassica oleracea Unpublished Other_GSSs: BOHFO59TR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brassica oleracea

Brassica oleracea

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Brassica.
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BOHFO59TF BOHF Brassica oleracea
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                                                                       Gallus gallus (chicken)
Gallus gallus
                                                                                                                                                                603005752F1 CSEQCHL01 Gallus
             Phasianinae; Gallus.
1 (bases 1 to 654)
                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: TF
Class: sheared ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9712 Medical Center Drive,
Tel: 301-838-3523
Fax: 301-838-0208
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BH501762
Boardman, P.E., Sanz-Ezquerro, J.,
                                                                                                                      BU106109.1
                                                                                                                                                                               BU106109
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DNA is from a doubled haploid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Chris Town
                                                                                                                                                  sequence.
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/note="Vector: pHOS1; Site_1: BstXI; 2-3 kb
genomic DNA insertted into pHOS1 using BstXI
a 120 c 141 g 177 t
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/clone="BOHFO59"
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/mol_type="genomic DNA"
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1 (bases 1 to 698)

Whitelaw,C.A., Quackenbush,J., Van Aken,S., Utterback,T., Resnick,A., Fraser,C.M., Yuan,Y., San Miguel,P., Ma,J. and Bennetzen,J.
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A Comprehensive Collection of Chicken cDNAs
Curr. Biol. 12 (22), 1965-1969 (2002)
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Department of Biomolecular Sciences
University of Manchester Institute of Science and Technology (UMIST
                                     9712 Medical Center Drive,
Tel: 301-838-5843
Fax: 301-838-0208
                                                                                                                                                                                     Maize Genomics Consortium
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Tel: 01612008930
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                                                                                                                          Contact: Cathy Whitelaw
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il: whitelaw@tigr.org
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//note="Organ: whole embryo; Vector: pBluescript II KS(+);
//note="Organ: whole embryo; Vector: pBluescript II KS(+) [Streatsgene] vector to accommodate cDNA produced with the T-trimmed protocol (Construction of uni-directionally cloned cDNA libraries from messenger RNA for improved 3' end DNA sequencing by Glenn Fu, et al.
U.S. Patent # 6,387,624). Cut pBluescript II KS(+) with NotI and EcoRI. Ligate in double stranded adaptor containing BsgI and BamHI sites
[5'gatcgcgtgcagcccgggatcggaaaaaaaag]
[5'aattctttttcggatccgggatcgaaaaaaag]
[5'aattctttttcggatccgggctgcacgc]"
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'strain="White Leghorn, Hisex"

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181 c 220 g 163 t
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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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                                                                   Krieg, A.M., Schetter, C. and Vollmer, J.C. Immunostimulatory nucleic acids Patent: WO 0122972-A 715 05-APR-2001; UNIVERSITY OF IOWA RESEARCH FOUNDATION (
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/mol type="genomic DNA"
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Patent: WO 0197843-A 102 27-DEC-2001;
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Sequence 102 from Patent
AX355074
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                                                            /organism="synthetic construct"
/mol_type="genomic DNA"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide-phosphodiester
/note="Synthetic oligonucleotide-phosphodiester
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Patent: WO 0211761-A 43 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE A
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/mol type="genomic DNA"
/mb xref="taxon:32630"
/note="Synthetic Sequence"
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PI KAZUO NAKANISHI, VLADIMIR VENIYAMINOVICHI ARYOSHIN, PI F
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C12N15/09, C12N1/21, C12P13/04// (C12N1/21, C12R1:19), (C12P13/04,
C12R1:19),
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Rivishittsu,V.A., Zakataeva,N.P., Nakanishi,K.,
Toroshin,P.V. and Tokumakova,I.R.
Process for producing L-amino acid
Patent: JP 2000189180-A 8 11-JUL-2000;
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Sequence 8 from Patent EP1016710.
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PF 28-DEC-1999 JP 1999373651
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VITARI ARUKAJEVICHI RIVISHITTSU,NATARIYA PAVUROVUNA
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/organism="synthetic construct"
/mol type="genomic DNA"
/mb xref="taxon:32630"
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Barratt, D. Graham. and Needham, M. Ronald.
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Barratt, D. Graham.
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Kara, B. V., Pioli, D., Bundell, K.R. ar

Kara, B. V., Pioli, D., Bundell, K.R. ar

T7 promoter-based expression system

Patent: US 6537779-A 3 25-MAR-2003;

Location/Qualifiers
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1 (bases 1 to 88)
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Sequence 3 from Patent WO9905297
AXO00393
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                                          Pioli,D. and Bundell,K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
Patent: WO 9905297-A 3 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
Location/Qualifiers
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Pioli, D. and Bundell, K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
PATENT: WO 9905297-A 4 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
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Sequence 4 from Patent WO9905297.
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AAS09568 AAC80598 ABK46446 AAS09575 AAF99516 AAC80605 AAC80605 ABC70231 ABK464453	SUMMARIES
Immunoreactive CpG Immunogenic CpG ol Immunostimulatory Immunoreactive CpG Immunosetimulatory Immunogenic CpG ol Anglogenesis inhib Immunostimulatory	Description

14-JAN-2000; 2000US-0176115 12-JAN-2001; 2001WO-US01122

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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262	262	262	257	246	236	207	207	200	186	182	147	114	105	61	31	23	21	449	435	431	431	431	427	421	421	417	375	353	258	254	252	177	88	88	38	20
24	22	22	25	21	19	24	22	24	24	25	σ	23	22	22	22	21	22	23	24	25	24	22	21	24	21	24	25	24	21	20	24	22	20	20	21	24
ABV96046	AAI28092	AAK25051	ABX90721	AAC19966	AAV09219	ABS24237	AAK24762	AAD41237	ABZ12726	ABX18882	AAN50295	ABS42271	AAF90441	AAF61495	AAI30598	AAZ88370	AAF95581	AAS92959	ABL37537	ABZ33178	ABK27741	AAI28992	AAC05284	ABN72741	AAA69847	ABN91391	ABX36533	ABN25861	AAC25423	AAX37307	ABN76325	AAL02385	AAX21529 ·	AAX21528	AAA52687	ABL38734
Human pancreatic c	Probe #18025 for g		Murine gene trappe	Human secreted pro	Human MC proprotei	Human genome-deriv	Human brain expres	Murine neuronal ty	Arabidopsis thalia	Human GDP-mannose	Ligated oligonucle	Human liver single	Human cytokine syn	Leu-hirudin/beta l	Human single nucle	Oligonucleotide PC	Human gene single	DNA encoding novel	Human colon tumour	Human colon tumour	Human colon cancer	Colon tumour relat	Human secreted pro	Ovarian carcinoma	Human ovarian carc	Staphylococcus epi	Bovine EST associa	Human ORFX polynuc		Human breast-speci	Human transcriptio	Human reproductive	Vector pZT7#3.3 co	Ω	Escherichia coli y	Immunostimulatory

ALIGNMENTS

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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; unticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09568 standard; DNA; 12 BP.
                                                                                                                                 WO200151500-A1.
                                                                                                                                                                                                                                                                                                                                                                       Immunoreactive CpG sequence-containing oligonucleotide #18.
                                                                                                                                                                                                    Leishmania; Ebola; Anthrax;
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RESULT 2
AAC80598
ID AAC8
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CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon activation in a tribody and interleukin-6 production in a host, for cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, correct, e.g. solid tumour cancer, a disease associated with the immune correct, e.g. solid tumour cancer, a disease associated with the immune correct, e.g. autoimmune disorder or an immune system deficiency, infection or asymptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cagainst hepatitis and autoimmune system deficiencies, e.g. lupus corrections infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and corrections resulting from exposure of bio-warfare agent, including Ebola, including Ebola,
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Best Local S
Matches 12
                                                                                                                                CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response intibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anthrax and Listeria.
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                                                                                                                                                                                                                                                                                                                                                                                                       CpG oligodeoxynucleotide, SEQ ID NO:18
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Pred. No. 3e+02;
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19-OCT-2000

RESULT 3
ABK46446
ID ABK4
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ABK46446

standard; DNA; 12

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                                                                                                                                                The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-G80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-NNNA') or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the coligonucleotide belivery complex comprising an oligonucleotide of the more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5'-NNNT-CpG-NNNA'3' being able to induce a thorat cell-mediated (T-cell) response, and those cof the sequence 5'-NNNT-CpG-NNNA'3' being able to induce a humoral cells on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of facural composition of ror B-cells. The induction of an immune response is activation of T- or B-cells. The induction of an immune response is activation of T- or B-cells. The induction of an immune response is coligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent inductions, and the confinence of infections which may be treated include extend allergic conditions, and the confinence of an autoimmune response induction may also be used in the created include extend allergic conditions, and the confistosomiasis. Immune response induction may also be used in the created include wiral, bacterial, fungal and character. An immunogenic CpG or immune system deficiency, and symptoms resulting from exposure to an activation of an autoimmune disorder (e.g., llupus exythematosus, treatment of an autoimmune disorder (e.g., llupus exythematosus, creating solid tumour cancer. The induction of an immune response is used in the creating activated lymphocytes which are then administered to the host. The oligonucleotide, either account of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 4; Page 27; 46pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-006880/01.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-APR-2000; 2000WO-US09839.
                                   1 TGCAGCGTTCTC 12
                                                                          12;
                                                                                         Similarity
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                                                                          Conservative
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                                                                                           .0%; Score 12; DB 22; .0%; Pred. No. 3e+02;
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ABK46446;

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RESULT 4
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DT 26-S
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CDG
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Matches 12
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IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; intection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
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01-SEP-2000; 2000US-229307P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                                                                                                                                                                                                   AAS09575 standard; DNA;
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                                                                                                               Immunoreactive CpG sequence-containing oligonucleotide #25.
                                                                                                                                                    26-SEP-2001
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                                                                                sequence; immune response; non-B cell activation; interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Page
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                                                                                                                                                                                                                                                                                                                                  1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the vaccine.
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Pred. No. 3e+02;
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RESULT 5
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                                                                                                                                                                                                                                                                                          Query Match
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Matches 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                   12-JUN-2001
                                                                                                     AAF99516;
                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least nucleotides comprising multiple CpG sequences, where one of the CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klinman
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-JAN-2001; 2001WO-US01122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
schistosomiasis; tuberculosis; acquired immunodeficiency syndr
                               Immunostimulatory nucleic acid
                                                                                                                                      AAF99516 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSH ) US
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                                                                                                                                                                                                                                                                                                            Similarity
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                                                                                                                                                                                                                                                                                          Conservative
                                                                   (first
                                                                                                                                      DNA;
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                                                                                                                                                                                                                                                                                      .0%; Score 12; DB 22;
0.0%; Pred. No. 2.9e+02;
0.0%; Pred. No. 2.9e+02;
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Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;

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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothioate; ss.
CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-SEP-1999; 99US-0156113.
27-SEP-1999; 99US-0156135.
23-AUG-2000; 2000US-0227436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
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                                                                                                                                                                                                                                               AAC80605;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immune deficiency. The present sequence can also be used to redirect
th2 to a Th1 immune response and to activate immune cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention relates to a method for stimulating an immune
                                                                                                                                                                            CpG oligodeoxynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 3
                                                                                                                                                                                                            (first entry)
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99US-0156135.
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Pred. No. 2.9e+02;
Mismatches 0;
                                                                                                                                                                            SEQ ID
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                                                                          protozoal;
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TGCAGCGTTCTC

Matches Query Match Best Local

12; Similarity

Conservative

0,

Mismatches

. 2.9e+02;

100.0%;

Score 12; DB Pred. No. 2.96

Length Indels

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Sequence

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cc acts on antigen presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by ca ctivation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG conditions agent or anti-infectious agent. The allergenic agent or anti-infectious agent. The allergic conditions continued eczema, allergic renditions with an combination with an allerdictions which may be treated include eczema, allergic rhinitis, hayfever, contitions such as tuberculosis, AlDS, leishmania and continuous per treatment of an autoimmune disorder (e.g., lupus erythematosus, crhemmatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an cagent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating coligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligonucleotide is preferably administered to lymphocytes ex vivo, of the present sequence represents an immunogenic CpG oligodeoxynucleotide of the host.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'.NNNT-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make conjugant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the coligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotides or a humoral comprising the oligonucleotide delivery complex. The oligonucleotides or a function comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a cell-mediated of the sequence of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral those of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral control of the sequence of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral control of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral control of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral control of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce a humoral control of the sequence 5'.NNNT-CpG-NNNN-3' being able to induce and dendritic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 28; 46pp; English.
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Best Local
                                                                                                                                                                                  The invention relates to inhibiting angiogenesis in a subject, comprising administering at least one antiangiogenic nucleic acid molecule. Also included is a kit comprising a first container housing the antiangiogenic nucleic acids, and instructions for administering them to a subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiactasia, haemophiliac joints, angiofibroma, wound granulation, intestinal adhesions, atherosclerosis, scleroderma and hypertrophic scars. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis; diabetic retinopathy; retinopathy of prematurity;
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              ABK46453
                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                          Claim 2;
                                                                                                                                                                                                                                                                                                                                                              Inhibiting angiogenesis in a subject, involves administering one antiangiogenic nucleic acid molecule to the subject -
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haemophiliac joint; angiofibroma; wound granulation;
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retrolental fibroplasia; rubeosis; Osler-Webber Syndrome;
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                                                                             TGCAGCGTTCTC
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              standard;
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                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                         32; 276pp; English.
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              DNA;
                                                                                                                     100.0%;
                                                                                                                                                      7 C; 4 G; 6 T; 0 other;
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                                                                                                           Score 12; DB 24;
Pred. No. 2.9e+02;
; Mismatches 0;
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01-SEP-2000; 2000US-229307P.
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   WO200197843-A2
                       Synthetic
                                                                                                  16-APR-2002
                                                                                                                      ABL38734;
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                                                                           Immunostimulatory
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12; Conserv
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                                                                           nucleic acid
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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides
Antibody-induced cell lysis; cancer; immunostimulatory; angiogenesis; metastasis; cytostatic; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oligdideoxynucleotide; ODN; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 12; DI
100.0%; Pred. No. 2.9
tive 0; Mismatches
                                                                                                               SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 other;
                                                                                                                      ŏ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 2.9e+02;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 24;
                                                                                                                  102.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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RESULT 10
AAA52687
ID AAA52
XX AAA52
XX AAA52
XX AAA52
XX BEChe
XX E. CC
XW PCR E
XX PCR E
XX PCR E
17-DE
XX 09-MJ
PR 09-MJ
PR 11-DE
PR 30-DE
PR 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to methods for treating or preventing cancer, involving administering to a subject having or at risk of developing cancer immunostimulatory nucleic acids that induce expression of cell surface antigens and antibodies. The methods are useful for treating or preventing cancer such as basal cell carcinoma, bladder cancer, bone cancer, brain and central nervous system (CNS) cancer, breast cancer, cervical cancer, colon and rectum cancer, connective tissue cancer, cesophageal cancer, eye cancer, kidney cancer, larynx cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, cancer, lung cancer, profit of cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin cancer, stomach cancer, testicular cancer, and uterine cancer. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Treating or preventing cancer, such as basal cell carcinoma, comprises administering immunostimulatory nucleic acids that induce expression occil surface antigens and antibodies to a subject having or at risk of
  Livshits VA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      developing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-JUN-2001; 2001WO-US20154.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-DEC-2001
                                                                                                         30-DEC-1998;
09-MAR-1999;
                                                                                                                                                                                    17-DEC-1999;
                                                                                                                                                                                                                                        05-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA52687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA52687 standard; DNA; 38
                                                                                                                                                                                                                                                                                                                                         Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IOWA ) UNIV IOWA RES FOUND
                                                   (AJIN ) AJINOMOTO CO
                                                                                                                                                                                                                                                                                                                                                                                                                  coli; yggA gene; amino acid production; excretion protein gene;
                                                                                                                                                                                                                                                                                                                                                                                            primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G, Hartmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              μ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                               88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
  Zakataeva NP,
                                                                                                         98RU-0124016.
99RU-0104431.
                                                                                                                                                                                    99EP-0125263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        yggA
                                                     INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
     Nakanishi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 12; DB 24;
Pred. No. 2.9e+02;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #2
  ᄌ
  Aleshin VV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20;
     Troshin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ovarian
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        P۷
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RESULT 11
AAX21528/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                   25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is a PCR primer for the yggA gene (an excretion protein gene) of Escherichia coli. The protein produced from this gene is involved in the production of amino acids, and an increase in its expression leads to an increased accumulation of amino acids in the cell. In this case, an increase in arginine, glutamic acid and lysine is achieved if multiple copies of the gene are transfected into a bacterium.
                                                                                                                                                                                                                                                                                                                                    Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; rheumatoid arthritis; glomerular nephritides; lung fibrosis; restenos alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; skiinflammatory bowel disease; multiple sclerosis; brain tumour; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX21528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein
                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                             Vector pZT7#3.3
                                                                                                                                                                                                                                                                                                                                                                                                                     13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX21528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Increased
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-414802/36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tokhmakova
                                                                  ç
                                                                           New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) - useful
                                                                                                  WPI; 1999-142934/12
                                                                                                                        Barratt
                                                                                                                                                                                                              21-JUL-1998;
                                                                                                                                                                                                                                      04-FEB-1999.
                                                                                                                                                                                                                                                           WO9905279-A1
                                                                                                                                             (ZENE )
                                                                                                                                                                                                                                                                                                                             reperfusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bacterium used is E.
                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGCAGCGTTCTC 12
                                                                                                                       ន្ត
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                             ZENECA
                                                                 inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCAGCGTTCTC 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           production increasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 7
                                                                                                                                                                                                                                                                                                                            injury; ischemia;
                                                                                                                         Needham
                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                   97GB-0015663.
97GB-0015659.
97GB-0015661.
                                                                                                                                                                                                                 98WO-GB02179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17; 29pp;
                                                                                                                                                                                                                                                                                                                                                                                             constructing 5-3' oligomer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; 12 C; 10 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of L-amino acids by an Escherichia bacterium the expression amount of an L-amino acid exc
                                                                                                                         MRC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 12;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                             myocardial infarction; medicament;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                               restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              excretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (M having substitution of an Ala, Gly or Thr for the natural Val at pos

natural Val at position

protein-1 (MCP-1)

Examples; Page 22; 49pp; English.

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RESULT 12
AAX21529
ID AAX22
XX AAX2
AX AAX2
AX Vect
XX Monc
KW Inen
KW
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Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1(9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (MCP-1) having substitution of an Ala, Gly or Thr for the natural Val at position 9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stroke, reperfusion injury, ischemia, myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stoke, reperfusion injury, isohemia, myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; rheumatoid arthritis; glomerular nephritides; lung fibrosis; reste alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; inflammatory bowel disease; multiple sclerosis; brain tumour; stroreperfusion injury; ischemia; myocardial infarction; medicament;
                                                                                                                                                                                                                                                                                                                                                                                                                                            New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) to treat inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-142934/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-FEB-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vector pZT7#3.3 constructing 3-5' oligomer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ZENE )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZENECA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Needham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97GB-0015663.
97GB-0015659.
97GB-0015661.
                                                                                                                                                                                                                                                                                                                                                                                  22;
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Pred.
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RESULT 13
AAL02385
ID AAL02385
AC AAL023
XX AAL023
XX AAL02
XX Humar
XX Humar
XX Humar
XX Humar
XX Homo
OS Homo
XX A20
XX A20
XX A20
XX A20
XX Homo
XX A20
X
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Best Local S
Matches 12
                 14-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUL-2000
26-JUL-2000
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11-JUL-2000
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04-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; reproductive system related antigen; reproductive system disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human reproductive system related antigen cDNA SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-NOV-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and transplant rejection. The analogues can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-MAY-2000
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2000US-0224519.
2000US-0225213.
2000US-0225214.
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                                                              2000US
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S-0215135.
S-0216647.
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01-SEP-2000 05-SEP-2000 06-SEP-2000 06-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 14-SEP-2000 14-SEP-2000 14-SEP-2000 14-SEP-2000 14-SEP-2000 14-SEP-2000

2000US-0229345. 2000US-0229509. 2000US-0229513. 2000US-0230437. 2000US-0230438. 2000US-0231242. 2000US-0231244. 2000US-0231244.

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RESULT 14
ABN76325;
ID ABN76325;
XX ABN76325;
AC ABN76325;
XX DE Human tran
XX DE Human; ORI
KW disease mo
KW immune moo
KW angiogene;
KW angiogene;
KW cardiovas
KW cardiovas
KW cardiovas
KW cardiovas
KW cardiovas
KW tissue gar
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Best Local S
Matches 12
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01-DEC-2000;
01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
08-DEC-2000;
Human; ORF; open reading frame; ORFX; drug screening; diagnosis; disease monitoring; cytokine; cell proliferation; cell differentiation; immune modulation; haematopoiesis regulation; tissue growth; angiogenesis; activin; inhibin; chemotactic; chemokinetic; haemostatic; thrombolytic; tumour inhibition; bodily characteristic; fertility; behaviour; cancer; proliferative disorder; neurological disorder; cardiovascular disease; immune system disorder; organ transplantation; tissue growth disorder; tissue regeneration disorder; diabetes mellitus; hypothyroidism; cholesterol ester storage disease; infection; vulnerary:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated
is used i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides the protein and coding number of human reproductive system related antigens. in the prevention and treatment of reproductive system including cancer. The present sequence is a coding sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
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P-PSDB; AAM96415.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 177
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention.
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                                                                                                                                                                            transcription factor-like ORF1272 cDNA,
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12; Conserv
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2000US-0249216

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2000US-0249244

2000US-0249265

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2000US-0249297

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2000US-025161

2000US-0251030

2000US-02511030

2000US-02511479

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100.0%; Pr
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Pred. No.
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                                                                                                                                                                                SEQ ID
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tigens. These can be u
e system disorders,
ding sequence of the
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14-SEP-2000 14-SEP-2000 14-SEP-2000 21-SEP-2000 21-SEP-2000 25-SEP-2000 25-SEP-2000 26-SEP-2000 27-SEP-2000 27-SEP-2000 29-SEP-2000

2000US-0234998

2000US-0233063. 2000US-0233064. 2000US-0233065. 2000US-0234223. 2000US-0234274. 2000US-0234297.

2000US-0232398. 2000US-0232399. 2000US-0232400. 2000US-0232401.

2000US-0235484 2000US-0235834 2000US-0235836 2000US-0236327 2000US-0236367 2000US-0236369 2000US-0236369 2000US-0236370 2000US-0236370 2000US-0236373

29-SEP-2000
29-SEP-2000
29-SEP-2000
02-OCT-2000
03-NOV-2000
06-NOV-2000
08-NOV-2000

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2000US-0237039.
2000US-0239937.
2000US-0249937.
2000US-0241785.
2000US-0241808.
2000US-0241808.
2000US-0241808.
2000US-0241808.
2000US-0246474.
2000US-0246477.
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2000US-0246528.
2000US-0246511.
2000US-0249211.
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2000US-0249211.

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neurological disorders such as epilepsy and Alzheimer's disease, cardiovascular diseases, immune system disorders, disorders related to organ transplantation, disorders of tissue growth and regeneration, diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases caused by viral, bacterial, fungal and other pathogens. ORFX nucleic acids may also be used as a source of primers and probes, in the detection of ORFX genomic sequences or transcripts, in the identification and cloning of homologous or transcripts, in genetic diagnosis, and in forensic biology. The ORFX nucleic acids may additionally be used to produce transgenic animals which may be useful for studying the function and/or activity of ORFX protein, and in drug screening. The ORFX proteins may also be used as immunogens to generate specific antibodies, which are useful in the diagnosis, treatment and monitoring of ORFX-associated diseases.
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequences ABP31028-ABP35561 represent 4534 novel human proteins designated ORF (open reading frame) 1-4534, and sequences ABN75054-ABN79587 represent CDNAs encoding them. The invention also encompasses polypeptides at least 80% identical to the ORF1-ORF4534 (collectively referred to as ORFX) proteins, polymucleotides at least 85% identical to the ORFX nucleic acid sequences, vectors and host cells comprising ORFX polymucleotides, the recombinant production of ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX polymucleotides and polypeptides, methods of screening for modulators of ORFX expression or activity, and methods of screening individuals for a predisposition to an ORFX-associated disorder. The ORFX proteins of the invention have a wide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-MAY-2001; 2001WO-US17076.
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Gordon J, Granados E
Russell JC, Stroupe
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                              specific gene BS200 - used to develop products for diagnosing, staging, preventing or treating diseas of the breast, e.g. breast cancer
                                                      Conservative
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               Issued_Patents_NA:*
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US-09-215-681-157
US-09-214-418C-31
US-09-134-001C-1044
US-09-174-943-5
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Sequence 12, Appl Sequence 3, Appli Sequence 3, Appli Sequence 4, Appli Sequence 157, App Sequence 157, App Sequence 157, App Sequence 157, App Sequence 1044, App Sequence 5, Appli Sequence 7, Appli Sequence 7, Appli Sequence 7, Appli Sequence 13, Appli Sequence 23, Appli Sequence 27, Appli Sequence 2
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Sequence 35, Appl	Sequence 17, Appl	Sequence 16, Appl	Sequence 12, Appl	Sequence 6, Appli	Sequence 29, Appl	Sequence 14, Appl	Sequence 11, Appl	Sequence 6, Appli	Sequence 25, Appl	Sequence 20, Appl	Sequence 1, Appli	-	Sequence 17, Appl	•	Sequence 6, Appli	Sequence 20, Appl	Sequence 28, Appl

ALIGNMENTS

RESULT 1 US-09-463-458A-12/c

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Sequence 13, Application US/09463458A
PATENT NO. 6383782
GENERAL INFORMATION:
APPLICANT: BATTATL, Detek G
APPLICANT: Needham, Maurice R.C.
TITLE OF INVENTION: MCP-1 ANALOGS
FILE REFERENCE: 1991-186
CURRENT APPLICATION NUMBER: US/09/463,458A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: PCT/GB98/02179
PRIOR FILING DATE: 1998-07-21
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 13
LENGTH: 88
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APPLICANT: Barratt, Derek G

APPLICANT: Needham, Maurice R.C.

APPLICANT: Needham, Maurice R.C.

FITLE OP INVENTION: MCP-1 ANALOGS

FILE REFERENCE: 1991-186

CURRENT APPLICATION NUMBER: US/09/463,458A

CURRENT FILING DATE: 2000-01-27

PRIOR APPLICATION NUMBER: PCT/GB98/02179

PRIOR PILING DATE: 1998-07-21

NUMBER OF SEQ ID NOS: 32
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OTHER INFORMATION: Description
OTHER INFORMATION: #3
US-09-463-458A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOPTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 88
TYPE: DNA
ORGANISM: Artificial Sequence
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Pred. No.
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                                                                RESULT 4
US-09-463-451-4
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Sequence 4, Application US/09463451
Patent No. 6537779
GENERAL INFORMATION:
APPLICANT: KARA, Buhpendra V
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GENERAL INFORMATION:
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Best Local (
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Best Local
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FILING DATE: 21-JUL-1998
APPLICATION NUMBER: GB 9715660.8
FILING DATE: 25-JUL-1997
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS Word
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/463,451
FILING DATE: 03-Apr-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BUNDELL, Kenneth R.
HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA
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                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
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ZIP: 20005-3918
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ilarity 100.0%;
Conservative (
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 Buhpendra V.
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RESULT 5
US-09-134-001C-854/c
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                                                                                                                                              GENERAL INFORMATION:

APPLICANT: Lynn Doucette-Stamm et al
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING '
TITLE OF INVENTION: BPIDERWIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064, 964
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-11-08
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674

SECUENCE: 417
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  Matches
                    Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                LENGTH: 417
TYPE: DNA
                                                                                              ORGANISM: Staphylococcus epidermidis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS WORD
CURRENT APPLICATION DATA:
APPLICATION UNMER: US/09/463,451
FILING DATE: 03-Apr-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB98/02175
FILING DATE: 21-UT-1998
APPLICATION NUMBER: GB 9715660.8
ETITION DATE: 21-UT-198
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ZIP: 20005-3918
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 4:
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ADDRESSEE: Pillsbury Madison & Sutro, L.L.P.
STREET: 1100 New York Avenue, N.W.
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HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
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l Similarity
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  Conservative
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                  100.0%; Score 12;
100.0%; Pred. No.
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100.0%; Pred. No. 44
tive 0; Mismatches
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US-09-404-879A-157/c
; Sequence 157, Application US/09404879A
; Patent No. 6468546
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US-09-38-933-157/c
Sequence 157, Application US/09338933
Patent NO. 6488931
GENERAL INFORMATION:
                                                                                                                 US-09-215-681-157/c

Sequence 157, Application US/09215681A

PATENT NO. 652825

GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
LENGTH: 421
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SOFTWARE: FastSEQ fo:
SEQ ID NO 157
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Best Local S
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APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY OF
TITLE OF INVENTION: OVARIAN CANCER
FILE REFERENCE: 210121.462C1
CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Frudakis, Tony N.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSIS
TITLE OF INVENTION: OF OVARIAN CANCER
FILE REFERENCE: 210121.463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
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nes 12; Conserv
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Pred. No.
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Pred. No. 40;
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Sequence 1044, Application US/09134001C
Patent No. 6380370
GENERAL INFORMATION:
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO AC
TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOST
FILE REFERENCE: GTC-007
CURRENT FILING DATE: 1990-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR FILING DATE: 1997-08-14
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; Sequence 31, Application US/09184418C
; Patent No. 6492110
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                                    ; ORGANISM: Staphylococcus epidermidis US-09-134-001C-1044
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CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.0%;
Matches 12; Conservative 0
                                                                                             SEQ ID NO 1044
LENGTH: 417
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hahn, Beatric
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
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TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
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100.0%; Pred. No. 1.7e+C
tive 0; Mismatches
  91.7%;
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  Score 11;
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Pred. No.
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                                                                                                                                                                                                                                                                                             AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS DIAGNOSTICS AND THERAPEUTICS
  DB 4;
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  Length 417;
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PRIOR FILING DATE: 1999-02-18

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR FILING DATE: 1998-07-27

SEQ ID NO 584

LENGTT: US/09/252,991A
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US-09-174-943-5
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US-09-252-991A-584
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GENERAL INFORMATION:
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Matches 11; Conserv
                                                                                                                                                   SEQ ID NO 584
LENGTH: 435
TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: (121)..(324)
;-09-174-943-5
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                                                                           Matches
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                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
                                                                                                                                                                                                                                                                                                                              APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERRNCE: MIV-106.01
CURRENT APPLICATION NUMBER: US/09/174,943
CURRENT FILING DATE: 1998-10-19
NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE TITLE OF INVENTION: PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: GYURIS, JENO APPLICANT: MORRIS, AARON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.0 BQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 426
                                                                                           Local
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              271
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l Similarity 100.0%;
ll; Conservative
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                                                                             Mismatches
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CORRESPONDENCE ADDRESS:
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US-08-436-714-5/c
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US-09-252-991A-14631/c
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           Sequence 5, Application US/08436714

Patent No. 5602244

Patent No. 5602244

GENERAL INFORMATION:

APPLICANT: Marvin H. Caruthers et al

APPLICANT: Nucleoside and Polynucleotide

TITLE OF INVENTION: Thiophosphoramidite and Phosphorodithioate Compounds and Proc
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APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: AUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
SEQ ID NO 14631
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GENERAL INFORMATION:
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SEQ ID NO 2053
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Patent No. 6551795
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER FILING DATE: 1998-07-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ACID CALLON OF DIAGNOSTICS AND THERAPEUTICS
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CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
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TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
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NUMBER OF SEQUENCES:
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11; Conservative 0;
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100.0%;
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ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STRYEE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER: Macincosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 4.0
CURRENT APPLICATION NOTA:
APPLICATION NUMBER: US/08/436,714
FILLING DATE:
FILLING DATE:
FILLING DATE:
CLASSIFICATION INFORMATION:
NAME: GEOGIGE M: YAHWAK
REGISTRATION INFORMATION:
INFORMATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 203)266-1951
INFORMATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
TYPE: UNGlet acid
STRANDEDNESS: single
MOLECULE TYPE: DNA
US-08-436-714-5
OPERATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
TYPE: UNGlet acid
TYPE: UNGlet acid
STRANDEDNESS: single
MOLECULE TYPE: DNA
US-08-436-714-5
OPERATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
TYPE: UNGlet acid
STRANDEDNESS: single
TOPOLOGY: linear
WOLECULE TYPE: DNA
US-08-436-714-5
OPERATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
STRANDEDNESS: single
TOPOLOGY: linear
WOLECULE TYPE: DNA
US-08-436-714-5
OPERATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
STRANDEDNESS: single
TOPOLOGY: linear
OPERATION FOR SED ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 Dase pairs
STRANDEDNESS: single
TOPOLOGY: linear
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SEQUENCE CHARACTERISTICS:
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Maximum DB
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Gapop 60.0 , Gapext 60.0
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/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUB.seq:*
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cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                    Length
                                                                   _6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
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    13 US-10-194-035-18

15 US-10-068-160-74

11 US-99-888-326-102

11 US-99-776-479-715

13 US-10-194-035-25

13 US-10-112-653-688

15 US-10-017-995-715

10 US-09-764-891-2386

11 US-09-764-891-2386

12 US-09-23-876-6331

12 US-09-923-876-6331

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12 US-09-923-876-6331

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14 US-09-960-352-1698

15 US-09-960-352-1698

16 US-09-9884-441-157
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Sequence 18, Appl
Sequence 74, Appl
Sequence 102, App
Sequence 25, Appl
Sequence 25, Appl
Sequence 688, App
Sequence 715, App
Sequence 23485, Ap
Sequence 6331, Ap
Sequence 6331, Ap
Sequence 635, App
Sequence 625, App
Sequence 157, App
Sequence 157, App
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ALIGNMENTS

RESULT 1 US-10-194-035-18

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PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 18
LENGTH: 12
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
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                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-18
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                                                                          Matches
                                                                                           Query Match
Best Local (
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APPLICANT:
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                        l Similarity
12; Conserv
                                    1 TGCAGCGTTCTC 12
TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KLINMAN, Dennis
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10. US20030144229A1
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                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ken
                                                                        100.0%; Score 12; DB 13
100.0%; Pred. No. 3e+02;
tive 0; Mismatches
                                                                                                               DB 13;
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                                                                                                               Length 12;
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RESULT 2

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APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, DEPARTMENT OF HEALTH AND HU
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE
FILE REFERENCE: 4239-61999
CURRENT FILING DATE: 2002-02-06
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/L28,898
PRIOR APPLICATION NUMBER: 60/L28,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PATENTIN VETE:
LENGTH: 1
RESULT 4
US-09-776-479-715
Commence 715, Ap
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-74
                                                                                                                                                                                                                                                      US-09-888-326-102
                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 102
LENGTH: 20
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Best Local Similarity
Matches 12; Conserv
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                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Methods for Enhancing Antibody-Induced TITLE OF INVENTION: Cell Lysis and Treating Cancer FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Weiner, APPLICANT: Hartma
                                                                                                                                                                                                                                                                   OTHER INFORMATION: Synthetic oligonucleotide NAME/KEY: misc feature LOCATION: (0)...(0)...(0) OTHER INFORMATION: phosphodiester backbone
                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
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ORGANISM: Artificial Sequence
                                                                                                                                                                                             Match 100.0%;
Local Similarity 100.0%;
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       Application US/09776479
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Pred. No. 3e+02;
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Pred. No. 2.8e+02;
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RESULT 6 US-10-112-653-688

Sequence 688, Application US/10112653 Publication No. US20030050268A1 GENERAL INFORMATION:

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RESULT 5
US-10-194-035-25
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Matches 1
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SEQ ID NO 715
LENGTH: 20
                                                                                                                                            Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative 0
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SEQ ID NO 25
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APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-03
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR PILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH APPLICANT: KLINNAN, Dennis
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 20
TYPE: DNA
                                                                                                                                                                                                                                                                                                                               FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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   TGCAGCGTTCTC 20
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Pred. No.
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FILE REFERENCE: C01039/70060 (AWS)
CURRENT APPLICATION NUMBER: US/10/112,653
CURRENT FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/279,642
PRIOR FILING DATE: 2001-03-29
NUMBER OF SEQ ID NOS: 1040
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 688
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                             Sequence 2386, Application US/09764891
Publication No. US20030077808A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PC006
CURRENT APPLICATION NUMBER: US/09/764,891
CURRENT FILING DATE: 2001-01-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 715
LENGTH: 20
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Best Local (
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Publication No.
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Best Local Similarity
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TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids FILE REFERENCE: C1037/7025 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/10/017,995
CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: US 60/255,534
PRIOR PILING DATE: 2000-12-14
Prior application data removed - consult PALM NUMBER OF SEQ ID NOS: 10231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Krieg, Arthur M.
APPLICANT: Berg, Daniel J.
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
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Pred. No. 2.8e+02;
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Pred. No. 2.8e+02;
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CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine
SEQ ID NO 23488
LENGTH: 238
                                                                                                 Sequence 6331, Application US/09923876 Patent No. US20020013958A1 GENERAL INFORMATION:
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Best Local
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APPLICANT: Lalgudi, Raghunath V.
APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLECTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R. APPLICANT: Hanzel, David K.
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LOCATION: (142)
OTHER INFORMATION: n equals a,t,g,
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ORGANISM: Homo sapiens
FEATURE:
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OTHER INFORMATION:
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ORGANISM: Homo sapiens
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ON: EXPRESSED IN FLACENTA, SIGNAL = 2.1

ON: EXPRESSED IN HELAT, SIGNAL = 2.7

ON: EXPRESSED IN HELA, SIGNAL = 2.7

ON: EXPRESSED IN BONE MARROW, SIGNAL = 1.6

ON: EXPRESSED IN ECTAL LIVER, SIGNAL = 2.1

ON: EXPRESSED IN ADULT LIVER, SIGNAL = 2.2

ON: EXPRESSED IN BRAIN, SIGNAL = 2.2

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: SWISSPROT HIT: PO1267, EVALUE 5.00e-04

ON: NT HIT: AJ400877.1, EVALUE 0.00e-00

ON: EST_HUMAN HIT: BF526465.1, EVALUE 1.00e-90
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tive 0; Mismatches
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CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
PRIOR APPLICATION NUMBER: 09/298,329

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US-09-923-876-6331
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Best Local S
Matches 12
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SEQ ID NO 6331
LENGTH: 258
                                             Sequence 1698, Application US/09960352
Patent No. US20020137139A1
GENERAL INFORMATION:
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SEQ ID NO 6331
LENGTH: 258
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                                                                                                                                                                                                                 Matches
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APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN
FILE REFERENCE: PL-0012-1 CON
APPLICANT: Warren, Wesley APPLICANT: Tao, Nengbing APPLICANT: Byatt, John C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 09/298,329
PRIOR FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
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CURRENT FILING DATE: 2001-08-06
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PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
NUMBER OF SEQ ID NOS: 6332
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OTHER INFORMATION: Incyte ID
NAME/KEY: unsure
LOCATION: 43, 46
OTHER INFORMATION: a, t, c, g
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OTHER INFORMATION: Inc:
NAME/KEY: unsure
LOCATION: 43, 46
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ORGANISM: Zea mays
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ORGANISM: Zea mays
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Pred. No. 2.1
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Pred. No. 2.1e+02;
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US-09-884-441-157/c
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                                                                                                                  Sequence 157, Application US/09884441
Patent No. US20020119158A1
GENERAL INFORMATION:
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SEQ ID NO 1698
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Best Local :
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APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Durham, Margarita
APPLICANT: Stolk, John A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF COLON CANCER
FILE REFERENCE: 210121.563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/066,543
CURRENT FILING DATE: 2002-01-31
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ORGANISM: Bos taurus
OTHER INFORMATION: Clone ID: 08-LIB3057-008-Q1-K1-B11
                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 408
TYPE: DNA
ORGANISM: Homo sapiens
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Carter, Darrick
Fanger, Gary R.
Smith, Carole L.
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APPLICANT: Carter, Dalling
APPLICANT: Hill, Paul
APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 157
LENGTH: 421
TYPE: DNA
ORGANISM: Homo sapiens
US-09-907-969-157
100.0%; Score 12; DB 11; Length 421
US-09-907-969-157
Search completed: January 20, 2004, 20:51:04 Job time: 80.7647 secs
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SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 157
; LENGTH: 421
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-884-441-157
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US-09-907-969-157/c
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Pling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
APPLICANT: Hill, Paul
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EST3160	AA328163		0	:	12	40
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7 BY156357	BY156357		9		12	36
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	AUTHORS	COMPL	MECLINE	JOURNAL		TITLE			AUTHORS	REFERENCE					ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION			DEFINITION	Locus	CNS04GF1	RESULT 1
Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F.,	Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C.,	10833643	20256533	Nat. Genet. 25 (2), 235-238 (2000)	using Tetraodon nigroviridis DNA sequence	Estimate of human gene number provided by genome-wide analysis	Saurin, W. and Weissenbach, J.	Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,	Roest Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,	P	Tetradontoidea; Tetraodontidae; Tetraodon.	Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;	Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Tetraodon nigroviridis	Tetraodon nigroviridis	GSS; genome survey sequence.	AL289558.1 GI:8028135	AL289558	sequence.	108I20 of library G from Tetraodon nigroviridis, genomic survey	Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone	CNS04GF1 56 bp DNA linear GSS 01-SEP-2000		

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JOURNAL
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This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
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                                                                                                                                                                                                                                                           Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubu, Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

The WashU-HHMI Mouse EST Project
                                                                                                                                                                       WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA165763 79 bp mRNA linear EST 12-FEB-1997 m860f12.rl Stratagene mouse embryonic carcinoma (#937317) Mus musculus cDNA clone IMACE:615983 5' similar to TR:E93245 E93245 ETN INSERT IN THE FAS APOPTOSIS GENE OF MRL-IPR/IPR. [1] ;, mRNA
                                                                                                      Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL
                                                                                                                                         Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                   IMAGE Consortium (info@image.llnl.
MGI:376807
                                                                                                                                                                                                                                Contact: Marra M/Mouse EST Project
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                                                   Possible reversed clone: similarity on wrong strand
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source
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence.
BE004779
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                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE004779 116 bp
MR2-BN0114-270400-004-g06_1 BN0114
                                                                                                                                                                           Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR2-BN0114-270 400-004-g06_1&t3=2000-04-27&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 116.
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                                                                                                                                                                                                                                                                                                                                                                     Tel: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence tags
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a 15 c
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                     /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0114"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/dev_stage="embryonic"
/lab_host="SOLR (kanamycin_resistant)"
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/db_xref="taxon:10090"
/clone="IMAGE:615983"
                                                                                                           organism="Homo sapiens"
                                                                                                                                                        ocation/Qualifiers
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note="Organ: breast_normal; Vector: pucl8; Site_1: Smal;
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340278 BF
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1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                           BACKWARD: GTTTTCCCAGTCACGACG
Plate: 98 row: B column: 5
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: tads@lpsi.barc.usda.gov
Single pass sequencing. Bases called and alt trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Sonstegard TS
USDA, ARS, Beltsville Agricultural Research Center
Bdlg. 200 Rm 2A, Beltsville, MD 20705, USA
Tel: 301 504 8416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Analysis of bovine mammary gland EST and functional annotation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Quackenbush,J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bos.
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n. Genome 13 (7), 373-379 (2002)
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301 504 8414
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                                                                                                                               /clone lib="BARC 5BOV"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled mRNA isolated from mammary
tissues at eight physiological, developmental, and disease
states."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                      /mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                        organism="Bos taurus"
/mol_type="mRNA"
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Pred. No. 9.9e+02;
D; Mismatches 0;
                                             Score 12; DB 10
Pred. No. 1e+03;
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                                Mismatches
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                                                                                                                                                     99 TGCAGCGTTCTC 88
                         BH759248 GSS 12-MAR-2002 KG00610-3prime Drosophila melanogaster P(SUPOr-P) P element insertion lines Drosophila melanogaster genomic Sequence recovered from 3 end of P element, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Other_GSSs: TC3-3E5.TP
Contact: Bjorn Andersson
Department of Genetics and Pathology
Uppsala University
Rudbeck Laboratory, SE-751 85, Uppsala, Sweden
Tel: 46 18 471 4107
Fax: 46 18 471 4808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trypanosoma; Schizotrypanum.

1 (bases 1 to 169)

Kluge, S., Edwards, K.E., Nilsson, D., Bontempi, E.J., Myler, , K., Ghedin, E., Bl-Sayed, N.M. and Andersson, B.

Clustering and analysis of BAC-end and GSS sequences from
BH759248
BH759248.1 GI:19352487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: bjorn.andersson@genpat.uu.se Clones are derived from the Trypanosoma cruzi CL-Brener BAC library TC3. For clone availability, please contact Dr. Bjorn Andersson at Uppsala University (bjorn.andersson@genpat.uu.se).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Trypanosoma
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Class: BAC ends.
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                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                  /mol_type="genomic_DNA"
/strain="CL_Brener"
/db_xref="taxon:5693"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'clone="TC3-3E5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Trypanosoma cruzi"
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                                                                                                                                                                                                                            100.0%;
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                                                                                                                                                                                                            Score 12; DB
Pred. No. 1e+
0; Mismatches
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                                                                                                                                                                                                                           1e+03;
                                                                                                                                                                                                                                           DB 28;
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                                                                                                                                                                                                                                         Length 169;
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BQ419254
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Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 174)
                                                                                   Clark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Marra, M., Eddy, S., Hiller, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwoo, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R.
                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
1. (bases 1 to 181)
                                                                                                                                                                                                                                                                                                                                                               BQ419254
BQ419254.1 GI:21124455
                                                                                                                                                                                                                                                                                                                                                                                                     181 bp faa36e08.yl zebrafish fin day3 r IMAGE:5911382 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence recovery method was inverse PCR. Sequence orientation is forward strand r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Berkeley Drosophila Genome Project
University of California, Berkeley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
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The Berkeley Drosophila Genome Project Gene Disruption Project
                                                                                                                                                                                                                                                                                            Danio rerio (zebrafish)
Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The P element insertion position is base 1 in the 174 bases. This insertion position refers to the first base of the 8 base target
                    WashU Zebrafish EST Project 1998
Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: gerry@fruitfly.berkeley.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Inverse PCR was performed on Drosophila melanogaster strains each of which contains one or more {SUPOr-P} P-element transposon insertion. The resultant fragment for each strain was directly sequenced to determine the genomic sequence at the site of insertion. Details of the protocols used can be found at http://www.fruitily.org/about/methods/inverse.pcr.html."
  Stephen L. Johnson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone lib="Drosophila melanogaster P\{SUPor-P\} P element insertion lines"
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n Danio rerio
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: zbrafish@watson.wustl.edu
cDNA Library Preparation: Raymond Lee. cDNA Library Arrayed by:
Matthew Clark. DNA Sequencing by: Washington University Genome
Sequencing Center Clone distribution: Genome Systems, St. Louis,
Missouri (web address: www.genomesystems.com) (email contact:
info@genomesystems.com) and Research Genetics, Huntsville, Alabama
(web address: www.resgen.com) (email contact: info@resgen.com) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
12; Conserv
                                                                                                                                     Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470 Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                      Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y.,
Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,
Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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K-EST0137622 S21SNU520 Homo
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Fax: 314 286 1810
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                                                                                                                                                                                                                                 Genome Research Center
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                                                                                         Email: yongsung@mail.kribb.re.kr
Plate: 58 row: D column: 08
                                                                                                                                                                                                                                                  Contact: Kim YS
                                                                                                                                                                                                                                                                    Unpublished
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                                                                                                                                                                                                                                                                                                 21C Frontier Korean EST Project 2001
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                                                                    quality sequence stop: 190.
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/rotee-Tvector: pBK-CMV; Site 1: EcoRI; Site 2: XhoI; 1st
strand cDNA primed with (GA)IOACTAGTCTCGAG(T)18, followed
by second strand synthesis, and ligated to 5' adapter (5')
-aattcggcacgag- 3', 3'-gccgtgctc-5'. cDNA was cloned
directionally (EcoRI/XhoI) into Stratagene Zap express
lambda phage arms. Mass invivo excision done to obtain
inserts in pBK-CMV phagemid."

1 39 g 32 t
/organism="Homo sapiens"
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/lab_host="E. coli XLOLR"
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/sex="mixed male and female"
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                                            ocation/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mRINA
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NU520-58-D08 5',
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                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael
R. Emmert-Buck, M.D., Ph.D.
                                                                                                                                         found through the I.M.A.G.E. Consortium/LLNL
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 282 Std Error: 0.00
                                                                                                                                                                                                                                                                                        Bonaldo, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Primates; Catarrhini; Hom

1 (bases 1 to 201)

NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anat
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                                                                                            Insert Length: 282 Std Erro
Seg primer: -40UP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumor Gene Index
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DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
                                                                                                                                                                                                                                                                                                               cDNA Library Preparation: M. Bento Soares, Ph.D.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /notes Torgan: Stomach; Vector: pTZ18RP1; Site_1: EcoR1;
Site_2: Not1; The poly (A) + RNA was dephosphory.lated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including EcoR
I site by treatment of T4 RNA ligase and the first strand
cDNA was synthesized from oligo dT-selected mRNA by
priming with dT-tailed vector. The dT-tailed vector was
adjusted to have about 60nt. The cDNA vector was
circularized with E. coli DNA ligase after digestion of
EcoRI which site is also included in vector. An RNA strand
converted to a DNA strand by Okayama-Berg method. The
obtained cDNA vectors were used for transformation of
competent cells E. coli ToplOF' by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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/db_xref="taxon:9606"
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Sutheria; Primates; Catarrhini; Hominidae; Homo.
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_line="SNU-520"
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Pred. No. 1.1e+03;
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RESULT 9

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Snoo

ACCESSION

VERSION

CEYWORDS

FEATURES

Query Match Best Local Similarity

100.0%;

Score 12; DB 9; Pred. No. 1.1e+03;

Length 211;

COMMENT

ORIGIN

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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                             found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 1701 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tissue Procurement: Christopher Moskaluk, M.D., Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    wl41a09.x1 NCI CGAP Ut1 Homo similar to TR:043791 043791 S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AI858682
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                                                                                                                                                                                                                                                                                                                             High quality sequence stop: 1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                              Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AI858682.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Mashington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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/clone lib="NCI CGAP GC6"
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Ecc RI; Plasmid DNA
from the normalized library NCI CGAP GC4 was prepared, and
ss circles were made in vitro. Following HAP purification,
this DNA was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from a pool
of 5,000 clones made from the same library (cloneIDs
1257096-1258631, 1469064-1470983, and 1475592-1476743).
Subtraction by Bento Soares and M. Fatima Bonaldo. "
40 a 36 c 64 g 61 t
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                                         /lab_host="DHIOB"
//lab_host="NGI_CGAP_Ut1"
//lob_e="NCI_CGAP_Ut1"
//note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: SalI;
//note="NotI; Cloned unidirectionally. Primer: Oligo dT.
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Life Technologies catalog #:
11538-014"
a 56 c
                                                                                                                                                     /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2427448"
/tissue_type="well-differentiated endometrial
/tissue_type="well-differentiated"
/tissue_type="well-differentiated"
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/lab_host="DH10B"
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RESULT 12
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BE831758/c
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,F.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221 bp mRNA linear RCO-MT0059-210600-031-a08 MT0059 Homo sapiens cDNA, BE831758
                                                                                                      1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl7tl=&t2=RC0-MT0059-210 600-031-a08&t3=2000-06-21&t4=1)
Seq_primer: puc 18 forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: asimpson@ludwig.org.br
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                                                                                                                                                           Similarity
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                                                                                                                                         Conservative
                                                                                                                                                                                                                                 65
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                                                                                                                                                                                                                             /note="Organ: marrow; Vector: pucl8; Site_1: SmaI; Site_2: SmaI; A mini-library was made by Cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196.,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector: Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                         clone_lib="MT0059"
                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"
|mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                           xref="taxon:9606"
_stage="Adult"
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Pred. No. 1.1e+03;
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JOURNAL
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 227)

Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and Kim, Y.S.

21C Frontier Korean EST Project 2001
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                    Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 235)
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Tel: +82-42-860-4470
Fax: +82-42-860-4409
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BM797505
1 (bases 1 to 235)
Rexroad, C.E. and Keele, J.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: yongsung@mail.kribb.re.kr
Plate: 77 row: B column: 01
High quality sequence stop: 227.
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                                                                                                                                                                                                                                                                                                         669857 NCCCWA 1RT Oncorhynchus
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                                                                                                                                                              Oncorhynchus mykiss (rainbow trout)
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                                                                                                                                                                                                                                                                                 mRNA sequence.
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/clome_lib="S22SNU16n1"
/clome_lib="S22SNU16n1"
/clome="Organ: Stomach; Vector: pT773-Pac; Site 1: EcoRI;
/note="Organ: Stomach; Vector: was contributed by the Site_2: NotI; The S22SNU16 library was constructed as described by Bonaldo, M.F., Lennon, G. and Soares, M.B. (1996), Genome Research 6(9): 791-806. RNA was prepared from harvested cells of SNU-16 culture. SNU-16 cell was obtained from Korean Cell Line Bank (KCLB). SNU-16 was established from ascitic fluids of Korean patients by Park J.G. et al. (1990), Cancer Res 50: 2773-2780."
46 a 65 c 70 g 46 t
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/mol_type="mRNA"
/db_xref="taxon:9606"
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Pred. No. 1.1e+03;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                               mRNA
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AW416284 GI:6944166
EST
Sus scrofa (pig)
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12; Conserv
                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 237)
Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Vallet, J., Wise, T., Rohrer, G.A., Pertea, G., Sultana, R., Quackenbush VJ. and Keele, J.W.
Porcine gene discovery by normalized cDNA-library sequencing and Porcins assembly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: crexroad@ncccwa.ars.usda.gov
Single pass sequencing. Bases called with
trimmed with the aid of the trim_alt optic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USDA, ARS, National Center for Cool and Cold Water Aquaculture 11876 Leetown Road, Kearneysville, WV 25430, USA Tel: 304 724 8340 x2129 Fax: 304 725 0351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cross_match v0.990329.
Seq primer: AGCGGATAACAATTTCACACAGGA.
                                                                                                                                                              Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 20
                                                                                                                                                                                                                         USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact:
                                                    BACKWARD: GTTTTCCCAGTCACGACG
Plate: 24 row: F column: 6
Seq primer: ATTTAGGTGACACTATAG
                                                                                                                                                                                                                                                                                                      Contact: Smith TPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence analysis of a rainbow trout normalized cDNA library
                                                                                                             FORWARD: AGGAAACAGCTATGACCAT
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/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled tissue from brain, gill, liver,
spleen, muscle, and kidney."
a 63 c 88 g 49 t
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/tissue_type="pooled"
/lab_host="DH10B"
                                   Location/Qualifiers
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organism="Sus scrofa"
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Pred. No. 1.1e+03;
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                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0409 row: A column: 18
Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
High quality sequence stop: 238.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 218)

Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacze,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D., Walse,R.
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University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
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238 bp DNA linear GSS 13-DEC-200
1M0409A18R Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC1M0409A18 R, genomic survey sequence.
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/db_xref="taxon:9823"
                                                                                                                                                                   musculus C57BL/6J (male) was obtained
                                                                                                                                                                                 /lab_host="E. Coli strain XL10-Gold, T1-resistant, P-"/clone_lib="Mouse 10kb plasmid UUGC1M library"/note="Vector: PWD42ny; Purified genomic DNA from M.
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/lab_host="DH10B"
                                                                                                                                              aboratory Mouse DNA Resource
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/strain="C57BL/6J"
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Search completed: January 20, 2004, 20:01:29 Job time: 736.059 secs BASE COUNT ORIGIN Query Match 100.0%; Score 12; DB 28; Length 238; Best Local Similarity 100.0%; Pred. No. 1.1e+03; Matches 12; Conservative 0; Mismatches 0; Indels 152 TGCAGCGTTCTC 163 1 TGCAGCGTTCTC 12 57 a 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gil4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance." 0; Gaps 0;

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Maximum Match 10
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1158.141 Million cell updates/sec
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SUMMARIES

Result No. Score Query Match 100 100 100 100 8 HSA335269 BV021785 AX194418 AX465368 AX104523 AX194425 AX355074 AX365375 AX547576 CNS019AV AR238175 AR257716 AR283762 AX366390 BD029029 AX192974 AX351431 AF379408 G04342 LEU58343 AX309558 BD049168 AR300404 AR300405 AX000393 AX000394 AF499608 HSA301497 ALIGNMENTS AX309558 Sequence BD049168 Sequence AF499608 Microbact AF379408 Hepatitis G04342 human STS W U58343 Liggin enri AL111407 Botrytis AL111407 Botrytis AR238175 Sequence AR283762 Sequence AR283762 Sequence AX366390 Sequence AX192974 Sequence AX192974 Sequence AX192974 Sequence AX340879 Sequence AX340879 Sequence AX340879 Sequence AX340879 Sequence AX952185 Unculture AJ35259 Homo Sapi BV021785 S212P6047 BV077471 S212P6048 AY203028 Arabidops G72218 Stn191 Stic Y14429 Heijanthus G72218 Stn191 Stic AX194418 Sequence AX465368 Sequence AX104523 Sequence AX194425 Sequence AX000393 AX000394 AX000554 AX000555 BD080181 BD080182 BD080189 AX309558 AR208641 AR300404 AR300405 AX030078 Sequence E49388 Process for AR208640 Sequence AX355074 Sequence AX465375 Sequence AX547576 Sequence Description Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Homo sapi Expressio Expressio

	JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AX194418	RESULT 1
Secretary of the Department of Health and Human Services (US)	Patent: WO 0151500-A 18 19-JUL-2001;	Oligodeoxynucleotide and its use to induce an immune response	Klinman, D., Ishii, K. and Verthelyi, D.	,	artificial sequences.	synthetic construct	synthetic construct		AX194418.1 GI:15385074	AX194418	Sequence 18 from Patent WO0151500	AX194418 12 bp DNA linear PAT 28-AUG-2001		

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12; Conserv
                                                                         Krieg,A.M., Schetter,C. and Vollmer,J.C. Immunostimulatory nucleic acids Patent: WO 0122972-A 715 05-APR-2001; UNIVERSITY OF IOWA RESEARCH FOUNDATION (
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/mol_type="genomic DNA"

/db_xref="taxon:32630"

/note="Synthetic oligonucleotide-phosphodiester backbone"

/note="gynthetic oligonucleotide-phosphodiester backbone"

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/mol type="genomic DNA"
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                                                                                                                 /note="Synthetic Sequence"
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AJINOMOTO CO INC
OS Artificial S
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PD 11-JUL-2000
PF 28-DEC-1999
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PI KAZUO NAKANISHI, VLADIMIR VENIYAMINOVICHI ARYOSHIN, PI I

VIRAJIMIROVICCHI TOROSHIN, IRINA RIVOVUNA TOKUMAKOVA PC

C12N15/09, C12N1/21, C12P13/04// (C12N1/21, C12R1:19), (C12P13/04,

C12R1:19),
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Troshin,P.V. and Zakataeva,N.P.
Method for producing 1-amino acids
Patent: EP 1016710-A 8 05-JUL-2000;
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PR 30-DEC-1998 RU 98124016,09-MAR-1999 RU
VITARI ARUKAJEVICHI RIVISHITTSU,NATARIYA PAVUROVUNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rivishittsu, V.A., Zakataeva, N.P., Nakanishi, K., Aryoshin, V.V., Toroshin, P.V. and Tokumakova, I.R. Process for producing L-amino acid Patent: JP 2000189180-A 8 11-JUL-2000;
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/organism="synthetic construct"
/mol type="genomic DNA"
/db_xref="taxon:32630"
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/mol type="genomic DNA"
/mol type="genomic DNA"
/db xref="taxon:32630"
/note="primer for amplifying Escherichia coli yggA gene"
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Patent: US 6383782-A 13 07-MAY-2002;
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Barratt, D. Graham. and Needham, M. Ronald. Charles.
MCP-1 analogs
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Sequence 12 from patent US
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Barratt,D.Graham. and Needham,M.Ronald.
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1 (bases 1 to 88)

Kara, B.V., Pioli, D., Bundell, K.R. ar

Kara, B.V., Pioli, D., Bundell, K.R. ar

T7 promoter-based expression system

Patent: US 6537779-A 3 25-MAR-2003;

Location/Qualifiers

1. .88
                                            1 (bases 1 to 88)
pioli, D. and Bundell, K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
PATENT: WO 9905297-A 3 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
LOCATION/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                               Kara,B.V., Pioli,D., Bundell,K.R. and Hockney,R.C. T7 promoter-based expression system Patent: US 6537779-A 4 25-MAR-2003; Location/Qualifiers
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Kara, B.V., Pioli, D.,
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1 (pioli,D. and Bundell,K.R.

TO PROMOTER-BASED EXPRESSION SYSTEM
PATENT WO 9905297-A 4 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)

LOCATION/Qualifiers
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AAC38732	ABL03125	AAS87399	AAA54126	AAL26726	AAS92962	AAH67500	AAS88065	ABL04787	ABN98794	AAL19789	ABQ66897	AAF13512	AAL10209	AAZ80112	AAC45194	AAC45707	AAS92959	ABL37537	ABZ33178	ABK27741	AAI28992	AAC05284	ABN72741 ·	AAA69847	ABN91391	ABX36533	ABN25861	AAC25423	AAX37307	ABN76325	AAL02385	AAX21529	AAX21528	N	ABL38734
Arabidopsis thalia	Drosophila melanog		Breast cancer prot	_		C glutamicum codin	DNA encoding novel	Drosophila melanog	Arabidopsis thalia	Human breast cance	ח	Aspergillus oryzae	Human breast cance	Human colon cancer	Arabidopsis thalia	Arabidopsis thalia	w.	Human colon tumour	Human colon tumour	Human colon cancer	Colon tumour relat	Human secreted pro	Ovarian carcinoma	Human ovarian carc	Staphylococcus epi	Bovine EST associa	Human ORFX polynuc			transcrip	Human reproductive	Vector pZT7#3.3 co	a	Escherichia coli y	Immunostimulatory

ALIGNMENTS

RESULT 1 AAS09568

AAS09568;

AAS09568 standard; DNA; 12 BP.

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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                   14-JAN-2000; 2000US-0176115.
                                                                         12-JAN-2001; 2001WO-US01122.
                                                                                                                 19-JUL-2001.
                                                                                                                                                                                         Synthetic.
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(USSH ) US DEPT HEALTH & HUMAN SERVICES.
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ABK46453

[mmunostimulatory

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RESULT 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 CC nucleotides comprising multiple CpG sequences, where one of the CpG CC sequences is different from another of the multiple CpG sequences. CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for C creating, preventing or ameliorating an allergic reaction, e.g. asthma, CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or conditions of immune response improves the efficacy of a vaccine and is CC used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies CC andiorating allergic conditions, including eczema, allergic rhinitis or CC cryza, hay fever, bronchial asthma, urticaria (hives), food allergies CC andiaria, for treating immune system deficiencies, e.g. lupus cerythematosus and autoimmune diseases such as rheumatoid arthritis and constrained resulting from exposure of bio-warfare agent, including Ebola, interactions including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and CC symptoms resulting from exposure of bio-warfare agent, including Ebola,
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Best Local S
Matches 12
                                                                                                                        CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa: parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klinman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             symptoms resulting from exposure to multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-442129/47.
                                        WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC80598 standard; DNA; 12 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                       Immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                  14-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12 BP; 1
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                                                                                                                                                                                                                                                                                                                                                                       CpG oligodeoxynucleotide, SEQ ID NO:18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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Pred. No. 8.8e+02;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                          protozoal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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19-OCT-2000

RESULT 3
ABK46446
ID ABK4
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ABK46446

standard;

DNA;

12

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CC (AAC8081-C80723). The obligonucleotide are at least 10 bases long (C (AAC8081-C80723). The central Cyg motif is unmethylated, and the C -RY-CyG-RY-3'. The central Cyg motif is unmethylated, and the coligonucleotide delivery complex comprising also relates to an coligonucleotide delivery complex comprising an oligonucleotide of the coligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotide of the comprising the oligonucleotide delivery complex complex composition comprising the oligonucleotide of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated response, and those coff the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a cell-mediated response, and those coff the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of the sequence 5'-RNNT-CyG-WNNN-3' being able to induce a humoral composition of natural composition of the sequence is useful for treating, preventing or amelioration and altergic condition of natural composition of the composition of the infection of the infection of the infection and infection, where an immunogenic CyG composition of the sequence response infection, where an immunogenic CyG composition of the infections such as latergic conditions, and the infections which may be treated include viral, bacterial, fungal and the composition of the infections and the composition of the infection of the infection and infections and the composition of the infection of th
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                                                                         Query Match
Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel oligonucleotides useful for the prevention and treatment oallergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent \, -
                                                                                                                                                     Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; Page 27; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KLIN/) KLINMAN
(ISHI/) ISHII K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-APR-2000; 2000WO-US09839
                                                                           12;
                                                                                              Similarity
                    TGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ishii K,
                                                                                                                                                       BP; 1 A;
                                                                             Conservative
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                                                                                              100.0%;
                                                                                                                                                       4 C;
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                                                                                                                                                         w
                                                                                                                                                         G; 4 T; 0 other;
                                                                             0
                                                                                                Score 12;
Pred. No.
                                                                             Mismatches
                                                                             . 8.8e+02;
ches 0;
                                                                                                                      DB 22;
                                                                                                                  Length 12;
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                                                                             0;
                                                                               Gaps
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ABK46446

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Best Local S
Matches 12
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              CpG sequence; immune response; non-B cell activation; interferon IFN-gamma; humoral; antibody production; interleukin-6 production therapeutic; allergy; asthma; cancer; autoimmune disorder; infect bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitic coryza; hay fever; urticaria; hives; food allergy; atopic conditi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                                                                            Immunoreactive CpG sequence-containing oligonucleotide #25.
                                                                                                                                           26-SEP-2001
                                                                                                                                                                                                      AAS09575
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-AUG-2001; 2001WO-US41633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2002
                                                                                                                                                                                                                                                                                                               1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                              12;
                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                                                                         represents
of the vacc
                                                                                                                                                                                                        standard; DNA;
                                                                                                                                                                                                                                                                                  TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prince G,
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          BP; 1 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          vaccine.
                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                          4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Klinman
                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                          3 G;
                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DM;
                                                                                                                                                                                                                                                                                                                                                             Score 12; DB 24;
Pred. No. 8.8e+02
                                                                                                                                                                                                                                                                                                                                                                                                          4 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodideoxynucleotide
                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                          0 other;
apy; eczema; allergic rhinitis;
food allergy; atopic condition;
rus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                             8.8e+02;
                                                                                                                                                                                                                                                                                                                                                                          Length 12;
                                                                                                                                                                                                                                                                                                                                              Indels
                                                               production
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                                              infection;
                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                             gamma;
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RESULT AAF9951

AAF99516 standard;

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SXEXEXEXE BXXXXXB

12-JUN-2001

(first

entry

Immunostimulatory nucleic acid #632.

Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;

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                                                                           Matches
                                                                                             Best
                                                                                                              Query Match
                                                                                                                                                                                                                                                                 treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and entities infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder an symptoms resulting from exposure to bio-warfare agents, compris multiple CpG sequences -
                                                                                                                                                                                                            multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania ar symptoms resulting from exposure of bio-warfare agent, including Ebola
                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klinman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-JAN-2000; 2000US-0176115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                             Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (USSH ) US
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9
                                                                           12;
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                                                                                             Similarity
                          TGCAGCGTTCTC 12
                                                                                                                                                       20
TGCAGCGTTCTC 20
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                                                                                                                                                     BP; 3 A; 7 C; 4 G; 6 T; 0 other;
                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US01122
                                                                                           100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                           0
                                                                           Score 12; DB
Pred. No. 9e+
0; Mismatches
                                                                                           DB 22;
9e+02;
                                                                           0
                                                                                                                Length
                                                                           Indels
                                                                                                                  20;
                                                                                                                                                                                                                                    Leishmania and
                                                                           0,
                                                                           Gaps
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RESULT 6
AAC80605
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to a method for stimulating an immune response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothicate;
CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural killer cell; NK cell activation; esponse; antibody production; immune response induction; B-cell response; antibody production; bacterial; viral; fungal; protozoal vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-SEP-1999;
27-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                              14-FEB-2001
                                                                                                                                                                                                                                                                                  AAC80605 standard; DNA; 20
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                                                                                                                                                                            Immunogenic
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          present sequence may have a phosphorothicate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; 99US-0156113.
; 99US-0156135.
; 2000US-0227436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 3
                                                                                                                                                                            CpG oligodeoxynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     52; 338pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vollmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                  В₽
                                                                                                                                                                                                                                                                                                                                                                                                                                        0:
                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 12; DB 22
Pred. No. 9e+02;
Mismatches
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                                                                                                                                                                            SEQ ID NO:25
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                                                                         protozoal;
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TGCAGCGTTCTC

Matches Query Match Best Local

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Conservative

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Mismatches

100.0%;

Score 12; Pred. No.

9e+02; DB 22; ٥,

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CC acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cells (e.g., macrophages and dendritic cartivation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cell (preferably asthma), or an infection, where an immune presponse is conditions conditions cell (preferably asthma), or an infection where an immune presponse is conditions cell (preferably asthma), or an infection, where an immune presponse is conditions cell (preferably asthma), or an infection where an immune presponse is conditions cell (preferably asthma), or an infection agent. The allergic conditions cell infections which may be treated include viral, bacterial, hayfever, cell infections such as tuberculosis, AIDS, leishmania and cell protozoal infections such as tuberculosis, AIDS, leishmania and cell infections such as tuberculosis, AIDS, leishmania and cell infections and multiple sclerosis, and the cell research of an autoimmune disorder (e.g., lupus crythematosus, cell infection of an autoimmune sclerosis), a disease associated with cell of a cell of an autoimmune presponse incompanies cell for treating cell of the cell of an immune presponse is used in cell good conditions of an immune response is used in cell good cell of the present sequence represents an immunogenic CpG oligonucleotide is preferably administered to lymphocytes ex vivo, cell the present sequence represents an immunogenic CpG oligonexplucitoride is preferably administered to lymphocytes cell to the host. The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RNY-CpG-RNY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide and the sequence of the sequence states and those of the sequence states and the sequence sta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel oligonucleotides useful for the prevention and treatment allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Page 28; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-APR-1999;
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RESULT 7
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ABK46453
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Χä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to inhibiting angiogenesis in a subject, comprising administering at least one antiangiogenic nucleic acid molecule. Also included is a kit comprising a first container housing the antiangiogenic nucleic acids, and instructions for administering them to a subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubcoeis, Osler Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophiliac joints, angiofibroma, wound granulation, intestinal adhesions, atherosclerosis, scleroderma and hypertrophic scars. The present construction and antiangiogenic nucleic acid of the invention.
                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 12
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                            ABK46453
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2; Page 32; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inhibiting angiogenesis in a subject, invone antiangiogenic nucleic acid molecule
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
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haemophiliac joint; angiofibroma; wound granulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Angiogenesis inhibitory oligonucleotide #715.
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12; Conserv
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                            standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                           B₽;
                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                           3 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                           7 C; 4 G; 6 T;
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Pred. No. 9e+
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le to the subject -
                                                                                                                                                                                                                                                                                                                               9e+02;
                                                                                                                                                                                                                                                                                                                                                         DB 24;
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ABL38734
ID ABL3
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Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             raramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dyspiasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                             Antibody-induced cell lysis; cancer; immunostimulatory; angiogenesis; metastasis; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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01-SEP-2000; 2000US-229307P.
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Synthetic
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                                                                                                                          Immunostimulatory
                                                                                                                                                                                                                                                                                 ABL38734 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                          nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 12;
100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                 ВP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 T;
                                                                                                                          SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CpG oligodideoxymucleotide #43.
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X S X F X B X B X S X B X

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RESULT 10
AAA52687
ID AAA52
XX AAA52
AC AAA52
XX Esche
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XX O5-JI
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to methods for treating or preventing cancer, involving administering to a subject having or at risk of developing cancer immunostimulatory nucleic acids that induce expression of cell surface antigens and antibodies. The methods are useful for treating or preventing cancer such as basal cell carcinoma, bladder cancer, bone cancer, brain and central nervous system (CNS) cancer, breast cancer, cervical cancer, colon and rectum cancer, connective tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian cancer, stomach cancer, testicular cancer, rhabdomyosarcoma, skin cancer, stomach cancer, testicular cancer, and uterine cancer. The present sequence is an immunostimulatory oligonucleotide described in the commentary of the cancer of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Treating or preventing cancer, such as basal cell carcinoma, comprises administering immunostimulatory nucleic acids that induce expression of cell surface antigens and antibodies to a subject having or at risk of
  Livshits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JUN-2000; 2000US-213346P
                                                         30-DEC-1998;
09-MAR-1999;
                                                                                                                                                                                                                                                              Escherichia coli yggA
                                                                                                                                                                                                                                                                                          03-JAN-2001
                                                                                                                                                                                                                                                                                                                      AAA52687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-JUN-2001; 2001WO-US20154.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-DEC-2001
                                                                                                   17-DEC-1999;
                                                                                                                               05-JUL-2000
                                                                                                                                                                                        Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                  AAA52687 standard; DNA;
                             (AJIN ) AJINOMOTO CO
                                                                                                                                                                                                                              coli; yggA gene; amino acid production; excretion protein gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ent sequence is an immunostimulat exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ဂ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                          (first entry)
  Zakataeva NP,
                                                         98RU-0124016.
99RU-0104431.
                                                                                                     99EP-0125263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; 7
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                               INC.
                                                                                                                                                                                                                                                              gene
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                                                                                                                                                                                                                                                              PCR
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  Nakanishi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 12; DB 24;
Pred. No. 9e+02;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                              primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T; 0 other;
 ζ,
  Aleshin VV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
    Troshin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
    PV;
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RESULT 11
AAX21528/c
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Best Local S
Matches 12
                                                                                                                                                                           25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a PCR primer for the yggA gene (an excretion protein gene) of Escherichia coli. The protein produced from this gene is involved in the production of amino acids, and an increase in its expression leads to an increased accumulation of amino acids in the cell. In this case, an increase in arginine, glutamic acid and lysine is achieved if multiple copies of the gene are transfected into a bacterium.
                                                                                                                                                                                                                                                                                                                                         alveolitis, asthma, atherosclerosis, psoriasis, hypersensitivity, skin, inflammatory bowel disease; multiple sclerosis, brain tumour, stroke, reperfusion injury, ischemia, myocardial infarction, medicament,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Increased production comprises increasing
                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; rheumatoid arthritis; glomerular nephritides; lung fibrosis; reste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX21528 standard; DNA; 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 38 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Page 17; 29pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tokhmakova
                                         Examples; Page 22; 49pp; English
                                                                  New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) - useful to treat inflammatory diseases
                                                                                                                              Barratt
                                                                                                                                                                                                                          21-JUL-1998;
                                                                                                                                                                                                                                                 04-FEB-1999.
                                                                                                                                                                                                                                                                        WO9905279-A1
                                                                                                                                                                                                                                                                                                                                PCR
                                                                                                                                                                                                                                                                                                                                                                                                                Vector pZT7#3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                       13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAX21528;
                                                                                                                                                     (ZENE )
                                                                                                                                                                                                                                                                                               omo
                                                                                                                                                                                                                                                                                                                                primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bacterium used is E.
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                                                                                                      1999-142934/12
                                                                                                                                                                                                                                                                                              sapiens
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                                                                                                                                                      ZENECA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCAGCGTTCTC 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                              Needham
                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                           97GB-0015663.
97GB-0015659.
97GB-0015661.
                                                                                                                                                      HID.
                                                                                                                                                                                                                          98WO-GB02179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 A; 12 C; 10 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                               constructing 5-3' oligomer
                                                                                                                               MRC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of L-amino acids by an Escherichia bacterium the expression amount of an L-amino acid exc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 12;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (M having substitution of an Ala, Gly or Thr for the natural Val at pos

natural Val at position

protein-1 (MCP-1)

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RESULT 12
AAX21529
ID AAX21
XX AAX21
XX AAX21
XX VOCT
XX MONO
CKW YNCHOM
KW Alvec
KW YNCH
OS HOMO
XX Synth
OS HOMO
XX PCPET
KW PCR PT
XX E35-JU
XX 25-JU
PR 25-JU
XX 25-JU
PR 25-JU
XX 25-JU
PR 25-JU
XX ARPI;
XX MPI;
XX MPI;
XX MPI;
XX TENM
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Best Local :
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (MCP-1) having substitution of an Ala, Gly or Thr for the natural Val at position 9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stroke, reperfusion injury, ischemia, myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; reheumatoid arthritis; glomerular nephritides; lung fibrosis; restenosis alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; skin; inflammatory bowel disease; multiple sclerosis; brain tumour; stroke; reperfusion injury; ischemia; myocardial infarction; medicament;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-142934/12.
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25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                           analogues of Monoc
treat inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
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12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TECACCETTOTO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  of Monocyte Chemoattractant ammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97GB-0015663.
97GB-0015659.
97GB-0015661.
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                                                                                                                                                                                                                                                                                                                                                                                       22; 49pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; 20 C; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MRC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 12;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.
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9.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
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RESULT 13
AAL02385
ID AAL02
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Best Local S
Matches 12
                                    11-JUL-2000

11-JUL-2000

14-JUL-2000

26-JUL-2000

26-JUL-2000

14-AUG-2000

15-AUG-2000

22-AUG-2000

23-AUG-2000

23-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                        18-APR-2000;
19-MAY-2000;
07-JUN-2000;
                                                                                                                                                                                                                                                                                                                                      07-JUL-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                           16-MAR-2000;
17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAL02385 standard; cDNA; 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 88
                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                           28-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200155320-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; reproductive system related antigen; reproductive system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAL02385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         transplant rejection. The analogues can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reproductive system related antigen cDNA SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28 recaecerrere 39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene therapy; ss.
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2000US-0179065
2000US-018628
2000US-0186350
2000US-0188153
2000US-0198174
2000US-0198174
2000US-0205515
2000US-0214886
2000US-0214886
2000US-0214886
2000US-0214887
2000US-0214887
2000US-0214887
2000US-0214889
2000US-0217487
2000US-0225963
2000US-022551
2000US-0225268
2000US-0225268
2000US-0225268
2000US-0225277
2000US-022577
2000US-0225779
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disorder;
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01-SEP-2000 05-SEP-2000 06-SEP-2000 06-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 14-SEP-2000 25-SEP-2000 25-SEP-2000 27-SEP-2000 27-SEP-2000 28-SEP-2000 29-SEP-2000 29-SEP-2000 29-SEP-2000 29-SEP-2000

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RESULT 14
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ID ABN76325
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Best Local S
Matches 12
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01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
08-DEC-2000;
Human; ORF; open reading frame; ORFX; drug screening; diagnosis; disease monitoring; cytokine; cell proliferation; cell differentiation; immune modulation; haematopoiesis regulation; tissue growth; angiogenesis; activin; inhibin; chemotactic; chemokinetic; haemostatic; thrombolytic; tumour inhibition; bodily characteristic; fertility; behaviour; cancer; proliferative disorder; neurological disorder; cardiovascular disease; immune system disorder; organ transplantation; tissue growth disorder; tissue regeneration disorder; diabetes mellitus; hypothyroidism; cholesterol ester storage disease; infection: vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 200
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides the protein and coding sequences o number of human reproductive system related antigens. These can be in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a coding sequence of the
                                                                                                                                                                                                                                       Human
                                                                                                                                                                                                                                                                                 08-JUL-2002
                                                                                                                                                                                                                                                                                                                                ABN76325;
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DB; AAM96415.
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                                                                                                                                                                                                                                                                                                                                                                             standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ucleic acid molecule encoding a reproductive preventing, treating or ameliorating a media
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nilarity 100.
Conservative
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2000US-0249217

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2000US-0249218

2000US-0249244

2000US-0249264

2000US-0249265

2000US-0249297

2000US-0249297

2000US-0249299

2000US-0250391

2000US-0250391

2000US-0251030

2000US-02511030

2000US-0251186

2000US-0251186
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.8e+02;
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                                                                                                                                                                                                                                         SEQ
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2000US-0236368 2000US-0236369 2000US-0236307 2000US-0236802 2000US-0237037 2000US-0237038 2000US-0237038 2000US-0237039 2000US-023935 2000US-023935

2000US-0235484. 2000US-0235834. 2000US-0235836. 2000US-0236327. 2000US-0236367. 2000US-0233063. 2000US-0233064. 2000US-0233065. 2000US-0234223. 2000US-0234274. 2000US-02342997.

29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
20-CCT-2000;
20-NOV-2000;
20-CCT-2000;
20-NOV-2000;
20-CCT-2000;
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20-NOV-2000;
21-NOV-2000;
21-NO

2000US-0246178
2000US-0241785
2000US-0241786
2000US-0241786
2000US-0241809
2000US-0246174
2000US-0246474
2000US-0246475
2000US-0246476
2000US-0246476
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2000US-0246478
2000US-0246677
2000US-0246678
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2000US-02466523
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2000US-0246528
2000US-0246528
2000US-0246529
2000US-0246611
2000US-0246611
2000US-0249211
2000US-0249211
2000US-0249211
2000US-0249211

vasotropic; antipsoriatic; antidiabetic; cytostatic; nootropic;

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                                                                                                                                                                                  CC range of biological activities, such as cytokine, cell differentiation, immune modulation, haematopoiesis regulation, cell differentiation, immune modulation, haematopoiesis regulation, cell differentiation, and immune modulation, haematopoiesis regulation, cell proliferation, cell differentiation, and immune modulation or inhibit activity, chemotactic/ cell modified activity, haemostatic activity, thrombolytic activity, and may also be involved in the determination of bodily characteristics, fertility and behaviour. ORRY proteins, cell of their proliferative disorders may be used in the treatment of cancers, cell conter proliferative disorders such as pooriasis and benign tumours, cell cell cacids and antibodies may be used in the treatment of cancers, cell cell cacids and antibodies may be used in the treatment of cancers, cell cardiovascular diseases, immune system disorders, disorders related to organ transplantation, disorders of tissue growth and regeneration, cell diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases caused by viral, bacterial, cell fungal and other pathogens. ORFX nucleic acids may also be used as a cource of primers and probees, in the detection of ORFX genomic sequences or transcripts, in the identification and coloning of homologous sequences, in genetic diagnosis, and in forensic biology. The ORFX contents, and in drug screening. The ORFX proteins may also be used as a communogens to generate specific antibodies, which are useful in the diagnosis to generate specific antibodies, which are useful in the communication and conserved discasses.
                                                                                    Matches
                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequences ABP31028-ABP35561 represent 4534, novel human proteins designated ORF (open reading frame) 1-4534, and sequences ABN75054-ABN75887 represent cDNAs encoding them. The invention also encompasses polypeptides at least 80% identical to the ORF1-ORF4534 (collectively referred to as ORFX) proteins, polypucleotides at least 85% identical to the ORFX mucleic acid sequences, vectors and host cells comprising ORF2 polypuclectides, the recombinant production of ORFX proteins, antibodic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polynucleotides, the recombinant production of ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX polynucleotides and polypeptides, methods of screening for modulators of ORFX expression or activity, and methods of screening individuals for a predisposition to an ORFX-associated disorder. The ORFX proteins of the invention have a wide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human polypeptides and polynucleotides useful for diagnosing, preventing and treating cardiovascular disease, neurodegenerative, hyperproliferative disorders and disorders related to organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neuroprotective; antiatherosclerotic; anticoagulant; thrombolytic; cardiant; hypotensive; antithyroid; antiinflammatory; immunomodulator; dermatological; analgesic; virucide; antibacterial; fungicide; gene; ss.
                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 896; 2508pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-MAY-2000; 2000US-206690P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CURA-) CURAGEN CORP.
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195
                                                                                    l Similarity
12; Conserv
                                                                                                                                                                                  252 BP;
                                      TGCAGCGTTCTC
                                                                                                                                                                                                                               treatment
                                                                                    Conservative
                                                                                                                                                                                  74
                                                                                                                                                                             A; 50
                                                                                                       100.0%;
                                                                                                                                                                                                                          and monitoring of ORFX-associated diseases
                                        12
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                                                                                      0
                                                                                                                                                                               63
                                                                                    Score 12; DB 24;
Pred. No. 9.9e+02;
; Mismatches 0;
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                                                                                                                                                                               0 other;
                                                                                                                               Length 252;
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                                                                                    Gaps
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Search completed: January Job time: 76.8235 secs

20,

2004,

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216 TGCAGCGTTCTC 205

1 TGCAGCGTTCTC 12

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RESULT 15
AAX37307/c
                                          Best
Matches
                    Query Match
                                                                                                                                                                                                                           Gordon J, G
Russell JC,
                                                                                                                                                                                                                                                                                                                                                                                                  Breast; cancer; BS200; EST; expressed sequence tag; human; detection; diagnosis; prevention; treatment; disease predisposition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAX37307 standard; DNA;
                                          Sequence
                                                                                 treating,
                                                                                                                   This invention describes a novel human breast-specific
                                                                                                                                      Claim 1b; Page 108; 124pp; English.
                                                                                                                                                              detecting, conditions
                                                                                                                                                                                 New breast
                                                                                                                                                                                                                                               Billing-Medel PA,
                                                                                                                                                                                                                                                                                           07-JUL-1997;
                                                                                                                                                                                                                                                                                                                07-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX37307;
                                                                        breast,
                                                                                              diagnosing, staging,
                                                                                                                                                                                                       WPI; 1999-120915/10
                                                                                                                                                                                                                                                                                                                                      21-JAN-1999.
                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                       This protein and its encoding nucleic acids are useful
                                                                                                                                                                                                                                                                       (ABBO ) ABBOTT LAB.
          Local
                                                               (EST's)
                                                                                                                                                                                                                                                                                                                                                                                                                                    breast-specific
12;
          Similarity
                                          254
                                                                       g, staging, monitoring, prognosticating, preventing or
or determining predisposition to diseases or condition
uch as breast cancer. AAX37305-X37320 are expressed sec
                                                                                                                                                          specific gene BS200 - used to de diagnosing, staging, preventing of the breast, e.g. breast cance
                                                                                                                                                                                                                                     del PA, Cohen
Granados EN,
Conservative
                                        B₽;
                                                                                                                                                                                                                            Stroupe
                                                               used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                            97US-0889127
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                                          71
                                         A; 67 C;
               100.0%;
                                                                                                                                                                                                                            gD,
        100.0%;
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                                                                                                                                                                       BS200 - used to develop products for taging, preventing or treating disease
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Hodges SC, Klass
Yu H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA EST clone 3213801
                                          70
           Score 12;
Pred. No.
                                         <u>ი</u>
 Mismatches
                                         46 T;
          9.9e+02;
                                          0 other;
                     DB 20;
                                                                                                                                                                                                                                      Friedman PN;
MR, Kratochvil
                    Length 254;
 Indels
                                                                                     or conditions of the
                                                                                                         protein BS200.
for detecting
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                                                                                                        detecting,
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12976, 270, A 115, A 83, Appl 36, Appl 14631, 12022,

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12753, A
20, Appl
14752, A
4, Appli
4, Appli
4, Appli
535, App
1906, Ap
1906, Ap
43, Appl
43, Appl

Sequence

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Total number of hits satisfying chosen parameters:
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/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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Sequence 12, Appl
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Sequence 4, Appl
Sequence 157, App
Sequence 12313, A
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Sequence 1, Appl
Sequence 21, Appl
Sequence 51, Appl
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APPLICANT: Neacham, Maurice R.C.

APPLICANT: Needham, Maurice R.C.

TITLE OF INVENTION: MCP-1 ANALOGS

FILE REFERENCE: 1991-186

CURRENT APPLICATION NUMBER: US/09/463,458A

CURRENT FILING DATE: 2000-01-27

PRIOR APPLICATION NUMBER: PCT/GB98/02179

PRIOR APPLICATION NUMBER: PCT/GB98/02179

PRIOR FILING DATE: 1998-07-21

NUMBER OF SEQ ID NOS: 32

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 12

LENGTH: 88

TYPE: DNA

ORGANISM: Artificial Sequence
                                                                                                      GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Barratt, Derek G
APPLICANT: Needham, Maurice R.C.
APPLICANT: Needham, Maurice R.C.
FIITLE OF INVENTION: MCP-1 ANALOGS
FILE REFERENCE: 1991-186
CURRENT APPLICATION NUMBER: US/09/463,458A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: PCT/GB98/02179
PRIOR FILING DATE: 1998-07-21
NUMBER OF SEQ ID NOS: 32
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; OTHER INFORMATION: Description
; OTHER INFORMATION: #3
US-09-463-458A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
US-09-463-458A-13
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                 SOFTWARE: PatentIn Ver. 2.1
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LENGTH: 88
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US-09-252-991A-12753

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Sequence 4, Application US/09463451
Patent No. 6537779
GENERAL INFORMATION:
APPLICANT: KARA, Buhpendra V
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GENERAL INFORMATION:
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FILING DATE: 21-UUL-1998
APPLICATION NUMBER: GB 9715660.8
FILING DATE: 25-UUL-1997
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: MS WOO'D
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/463,451
FILING DATE: 03-App-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:

PRIOR APPLICATION DATA:
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HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09463451
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   Buhpendra V.
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100.0%; Pred. No. 1.1e+02;
tive 0; Mismatches 0;
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Pred. No. 1.1e+02
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Matches
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Best Local 9
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TYPE: DNA
1 TGCAGCGTTCTC 12
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ORGANISM: Staphylococcus epidermidis US-09-134-001C-854
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: EDIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: EDIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
TITLE REFERENCE: GTC-007
CURRENT PILLORION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NOS: 5674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/GB98/02175
APPLICATION NUMBER: 21-JUL-1998
APPLICATION NUMBER: GB 9715660.8
FILING DATE: 25-JUL-1997
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 854, Application US/09134001C
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ZIP: 20005-3918
ZIP: 20005-3918
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: MS Word
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/463,451
FILING DATE: 03-App-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION DATA:
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MOLECULE TYPE: other nucleic acid
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
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ADDRESSEE: Pillsbury Madison & Sutro, L.L.P.
STREET: 1100 New York Avenue, N.W.
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HOCKNEY, Robert C.

TITLE OF INVENTION: T7 Promoter-Based Expression System
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l Similarity
12; Conserva
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  Conservative
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                       100.0%; Score 12; DB 4; 100.0%; Pred. No. 1.2e+02;
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100.0%; Pred. No. 1.:
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TGCAGCGTTCTC 145

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US-09-404-879A-157/c
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; Sequence 157, Application US/09338933
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                                                                                                                                                                                      RESULT 8
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APPLICANT: Mitcham, Jennifer L.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
Sequence 157, Application US/09215681A
Patent NO. 6528253
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Frudakis, Tony N.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSIS
TITLE OF INVENTION: OF OVARIAN CANCER
FILE REFERENCE: 210121.463
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
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Best Local
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GENERAL INFORMATION:
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Best Local :
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SOFTWARE: FastSEQ fo:
SEQ ID NO 157
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CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
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APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY OF
TITLE OF INVENTION: OVARIAN CANCER
                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 421
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nes 12; Conserv
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SEQ ID NO 196
LENGTH: 658
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(658)
OTHER INFORMATION: n = A,T,C or G
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US-09-252-991A-12313/c
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APPLICANT: Monahan, John E.
APPLICANT: Monahan, John E.
APPLICANT: MONAHAN, JOHN E.
APPLICANT: MONAHAN GENES AND GE
TITLE OF INVENTION: NOVEL HUMAN GENES AND GE
TITLE REFERENCE: CCD-257 (US)
FILE REFERENCE: CCD-257 (US)
CURRENT APPLICATION NUMBER: US/09/328,111
CURRENT FILING DATE: 1999-06-08
EARLIER APPLICATION NUMBER: US 60/088,801
EARLIER FILING DATE: 1998-06-10
NUMBER OF SEQ ID NOS: 850
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Sequence 12313, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: MYCHION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
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LENGTH: 421
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Best Local &
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CURRENT FILING DATE: 1998-12-17
NUMBER OF SEQ ID NOS: 310
SOFTWARE: FASTSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bushnell, Steven B. APPLICANT: Carroll III, Eddie APPLICANT: Catino, Theodore J. Appricants
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APPLICANT: Burgess, Christopher C.
APPLICANT: Bushnell, Steven E.
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ORGANISM: Homo sapien
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Similarity 100.0%;
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Similarity 100.0%; Pred. No. 1.3e+02;
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Pred. No.
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RESULT 11
US-08-393-985-22/c
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-12313
                                                                    US-08-393-985-22
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative C
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Patent No. 5693476
GENERAL INFORMATION:
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LENGTH: 732
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                                                                                                                                                                                                                                                                                TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                  NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 86(15)
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/393,985
                                                                                                                                                                                   MOLECULE TYPE: CL
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                                                                                                                                                    ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                     FEATURE:
                                                                                                                                                                               HYPOTHETICAL:
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ADDRESSEE: Dehlinger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                   ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
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Local Similarity 100.0%;
les 12; Conservative 0
                                                                                                       NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                  INDIVIDUAL ISOLATE:
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                                                                                  LOCATION:
                                                                                                                                                                                                                                                                    ENGTH:
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                                                                                                                                                                                                                                                                    790 base pairs
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350 Cambridge Avenue, Suite 250
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2.,790
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                                                                                                                                  Cytoplasmic domain of
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Pred. No. 1.3e+02;
   Score 12; DB 1; Length 790; Pred. No. 1.3e+02; Indels); Mismatches 0; Indels
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US-08-393-985-1/c
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                                                                                                                      RESULT 13
US-09-252-991A-12363/c
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US-08-393-985-1
            Sequence 1233, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: MARC J. RUBENFION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/08393985
Patent No. 5693476
                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                Matches
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
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FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 86
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                      ORIGINAL SOURCE:
INDIVIDUAL ISOLATE:
INDIVIDUAL ISOLATE:
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NAME: Sholtz, Charles K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                          Local Similarity nes 12; Conserv
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ZIP: 94306
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STRANDEDNESS: doub
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STREET: 350 Cambridge Avenue, Suite 250
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                                                                                                                                                                                           428 TGCAGCGTTCTC 417
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100.0%; Pred. No. 1.4e+02;
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acids 4-288;
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CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18

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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-12363
                                                                                                    US-08-264-002-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application Patent No. 5559019
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LENGTH: 2262
                                Best Local Similarity
Matches 12; Conserv
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Best Local Similarity
                                                                 Query Match
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PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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                                                                                                                                                                                                                                                                                                 TELEFAX: 619/455-5110 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: GUI, JIAN-FANG
APPLICANT: GUI, ZIANG-DONG
APPLICANT: FU, XIANG-DONG
TITLE OF INVENTION: NOVEL PROTEIN SERINE KINASE, SRPK1
RUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: SPENSLEY HORN JUBAS & LUBITZ
STREET: 1880 Century Park East, Fifth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk.
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: TUMARKIN PH.D., LISA A.
REGISTRATION NUMBER: P-38,347
                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: PD TELECOMMUNICATION INFORMATION:
                                                                                                                                                  FEATURE:
                                                                                                                                                              CLONE: SRPK1
                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                          LENGTH: 4299 base pairs
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                                  Conservative
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                                              Score 12; DB 1; Pred. No. 1.5e+02;
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US-09-221-017B-811
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                                                            Matches
                                                                         Query Match
Best Local Similarity
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SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                           TOPOLOGY: C11cut
MOLECULE TYPE: DNA
MOLECULE TYPE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PastSEQ for Windows Version 2.0b CURRENT APPLICATION NUMBER: US/09/221 ^^~ FILING DATE:
                                                                                                                                FEATURE:
NAME/KEY: misc_feature
LOCATION: 1...4413
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PP2911
FILING DATE: 09-APR-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/AU98/01023
FILING DATE: 10-DEC-1998
ATTORNEY/AGENT INFORMATIN:
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PRIOR APPLICATION DATA:
PP1182
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                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 650-813-5600
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PRIOR APPLICATION DATA:
PP2911
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FILING DATE: 31-DEC-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                ANTI-SENSE: UNK
ORIGINAL SOURCE:
                                                                                                                                                                                                          HYPOTHETICAL: NO
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TITLE OF INVENTION: P. GINGIVALIS NUCLEOTIDES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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REGISTRATION NUMBER: 32,430
REFERENCE/DOCKET NUMBER: 27340-20021.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
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                                                                                                                                                                                ORGANISM:
                                                                                                                                                                                                                                                                         STRANDEDNESS:
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                                                            Conservative
                                                                                                                                                                                                                                                           circular
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23-DEC-1998
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                                                                       100.0%; Score 12; DB 4;
100.0%; Pred. No. 1.5e+02;
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                                                            Mismatches
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                                                            Gaps
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Search completed: January 20, 2004, 17:17:13 Job time : 21.7647 secs



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Database
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Maximum Match 100%
Listing first 45 s
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-068-160-74
12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2324096 seqs, 1762381658 residues
                                                                                                                                                                                                                                                                                                                                                                                    Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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                                                                                                cgn2-6/ptodata/1/pubpna/US09 NEW PUB.seq:*
cgn2-6/ptodata/1/pubpna/US09_NEW_PUB.seq2:*
cgn2-6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                               _6/ptodata/1/pubpna/USO7_NEW_PUB.seq:*
_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
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                     6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

-6/ptodata/1/pubpna/US10_NEW_PUB.seq:*

-6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                              5/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                    ptodata/1/pubpna/US08_NEW_PUB.seq:
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                                                                                                                                                                                                                                                              ptodata/1/pubpna/US08_PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

c 15	C 14	13	c 12	11	10	ი 9	8	7	6	ហ	4	ω	N	1	Result
. 12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	Score
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match Length DB
421	421	408	375	258	258	238	177	20	20	20	20	20	12	12	ength
11	5	15	10	12	9	13	11	15	15	ü	11	ㅁ	15	13	DB :
US-09-907-969-157	US-09-884-441-157	US-10-066-543-625	US-09-960-352-1698	US-09-923-876-6331	US-09-923-876-6331	US-10-029-386-23488	US-09-764-891-2386	US-10-017-995-715	US-10-112-653-688	US-10-194-035-25	US-09-776-479-715	US-09-888-326-102	US-10-068-160-74	US-10-194-035-18	ID
Sequence 157, App	Sequence 157, App	Sequence 625, App	Sequence 1698, Ap		Sequence 6331, Ap	Sequence 23488, A	Sequence 2386, Ap	Sequence 715, App	Sequence 688, App	Sequence 25, Appl	Sequence 715, App	Sequence 102, App	Sequence 74, Appl	Sequence 18, Appl	Description

RESULT 2

45	C 44	43	42	41	40	c 39	38	37	c 36	ω In	c 34	ω u	32	31	30		c 28		26			c 23	22	21	20		c 18	
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US-10-066-543-331	US-10-066-543-152	US-10-066-543-1021	-543	US-10-066-543-1146	US-10-066-543-638	US-10-066-543-128	US-10-066-543-526	US-10-066-543-1014	US-10-029-386-9788	US-10-066-543-733	US-10-066-543-144	US-10-066-543-610	US-10-066-543-665	US-10-066-543-343	US-10-066-543-750	US-09-918-995-20210	US-10-027-632-267906	US-10-027-632-267906	US-09-918-995-33034	US-10-146-502-1126	US-10-046-935-1126	US-09-878-178-1126	US-10-025-380-541	US-09-833-263-541	US-09-922-217-541	US-10-027-632-272428	US-10-027-632-272428	US-10-198-053-157
331,	Sequence 152, App	Sequence 1021, Ap	•	6	638,	Sequence 128, App	526, 1	1014,	ω,	733,	144,	•	665,	343,	Sequence 750, App	Sequence 20210, A	Sequence 267906,	Sequence 267906,	Sequence 33034, A	Sequence 1126, Ap	1126,	1126,	541,	e 541,	Sequence 541, App	Sequence 272428,	Sequence 272428,	Sequence 157, App

ALIGNMENTS

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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PILING DATE: 2000-01-14
PRIOR PILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 18
LENGTH: 12
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE: TURNORMER OF SECTIONS OF
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Best Local S
Matches 12
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Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
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                                                                                                                                                                                                                                                  Similarity
TGCAGCGTTCTC 12
                                                                                              TGCAGCGTTCTC 12
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                                                                                                                                                                                             Score 12; DB Pred. No. 1e+ 0; Mismatches
                                                                                                                                                                                                                                                  1e+03;
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RESULT 4
US-09-776-479-715
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OTHER INFORMATION: Oligonucleotide
US-10-068-160-74
Sequence
                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 12; Conserv
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 102
LENGTH: 20
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Best Local Similarity
Matches 12; Conserv
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PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
SEQ ID NO 74
LENGTH: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NIMBER OF THE CONTROL OF
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Weiner, George APPLICANT: Hartmann, Gun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/068,160 CURRENT FILING DATE: 2002-02-06
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: phosphodiester backbone
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OTHER INFORMATION: Synthetic oligonucleotide
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715,
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Application US/09776479
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100.0%; Pred. No. 1e+03;
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Pred. No. 1e+03;
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RESULT 6 US-10-112-653-688

Sequence 688, Application US/10112653
Publication No. US20030050268A1
GENERAL INFORMATION:

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APPLICANT: Bratzler, Robert L.
APPLICANT: Betersen, Deanna M.
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
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                                                                                                                                         ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-25
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US-10-194-035-25
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                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 715 LENGTH: 20
                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 25, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                     Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: PCT/US01/01122 PRIOR FILING DATE: 2001-07-19
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                                                                                                                                                                           LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12; Conservative
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                           TGCAGCGTTCTC 12
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 TGCAGCGTTCTC 20
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                                                                    Conservative
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100.0%; Pred. No.
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                                                                                       Score 12; DB 13
Pred. No. 1e+03;
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1e+03;
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; Sequence 2386, Application US/09764891
; Publication No. US20030077808A1
; GENERAL INFORMATION:
   APPLICANT: Rosen et al.
   TITLE OF INVENTION: Nucleic Acids, Proteins, and FILE REFERENCE: PC006
; CURRENT APPLICATION NUMBER: US/09/764,891
; CURRENT FILING DATE: 2001-01-17
; Prior application data removed - consult PALM or NUMBER OF SEQ ID NOS: 10231
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2386
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US-09-764-891-2386
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CURRENT APPLICATION NUMBER: US/10/112,653
CURRENT FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/279,642
PRIOR FILING DATE: 2001-03-29
NUMBER OF SEQ ID NOS: 1040
SOFTWARE: F881SEQ for Windows Version 3.0
SEQ ID NO 688
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 715
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Best Local (
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Best Local :
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TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
FILE REFERENCE: C1037/7025 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/10/017,995
CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: US 60/255,534
PRIOR FILING DATE: 2000-12-14
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APPLICANT: Berg, Daniel J.
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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ORGANISM: Artificial Sequence
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o. US20030055014A1
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Pred. No.
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Pred. No.
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Best Local S
Matches 12
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CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine
SEQ ID NO 23488
LENGTH: 238
                                                                                                                                             Sequence 6331, Application US/09923876
Patent No. US20020013958A1
GENERAL INFORMATION:
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                                   APPLICANT: Lalgudi, Raghunath V.
APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
FILE REFERENCE: AEOMICA-X-2
CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
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LOCATION: (142)
OTHER INFORMATION: n equals a,t,g,
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OTHER INFORMATION:
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ORGANISM: Homo sapiens
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N: EXPRESSED IN PLACENTA, SIGNAL = 2.1

N: EXPRESSED IN HELA, SIGNAL = 2.7

ON: EXPRESSED IN HELA, SIGNAL = 2.7

ON: EXPRESSED IN BONE MARROW, SIGNAL = 1.6

ON: EXPRESSED IN BOTAL MARROW, SIGNAL = 2.1

ON: EXPRESSED IN BETAL LIVER, SIGNAL = 2.1

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: SWISSPROT HIT: P01267, EVALUE 5.00e-04

ON: NT HIT: AJ400877.1, EVALUE 0.00e-00

ON: EST_HUMAN HIT: BF526465.1, EVALUE 1.00e-90
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PRIOR APPLICATION NUMBER: 09/298,329

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RESULT 12
US-09-960-352-1698/c
US-09-960-352-1698/c
US-09-960-352
Sequence 1698, Application US/09960352
Patent No. US20020137139A1
GENERAL INFORMATION:
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Publication No. US20030237110A9
GENERAL INFORMATION:
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Best Local
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SEQ ID NO 6331
LENGTH: 258
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APPLICANT: Warren, Wesley APPLICANT: Tao, Nengbing APPLICANT: Byatt, John C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lalgudí, Raghunath V.
APPLICANT: Kamigakí, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
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NAME/KEY: misc feature
OTHER INFORMATION: Incyl
NAME/KEY: unsure
LOCATION: 43, 46
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PRIOR FILING DATE: 1998-05-05
NUMBER OF SEQ ID NOS: 6332
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 09/298,329
PRIOR FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
NUMBER OF SEQ ID NOS: 6332
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CURRENT FILING DATE: 2001-08-06
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                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
OTHER INFORMATION: Incy
NAME/KEY: unsure
LOCATION: 43, 46
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ORGANISM: Zea mays
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ORGANISM: Zea mays
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SEQ ID NO 625
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SEQ ID NO 1698
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Best Local :
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APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 210121.563
CURRENT APPLICATION NUMBER: US/10/066,543
CURRENT FILING DATE: 2002-01-31
NUMBER OF SEQ ID NOS: 3417
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                                                                                  APPLICANT: Algate, Paul A. APPLICANT: Carter, Darric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Durham, Margarita
APPLICANT: Stolk, John A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: ADDIAGNOSIS OF COLON CANCER
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TYPE: DNA
ORGANISM: Homo sapiens
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OTHER INFORMATION: Clone ID: 08-LIB3057-008-Q1-K1-B11
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TYPE: DNA
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Fanger, Gary R.
Smith, Carole L.
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APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOOTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 157
LENGTH: 421
TYPE: DNA
ORGANISM: Homo sapiens
US-09-907-969-157
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US-09-907-969-157/c
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; ORGANISM: Homo sapien
US-09-884-441-157
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Ranger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
APPLICANT: Hill, Paul
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
LENGTH: 421
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CCB884492 MA1072 Ha
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AI505997 VL23h04.x
BB245376 BB245376
AZ818851 2M0089911
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AI203283 qr24c10.x AI85862 wi41a09.x BEB31758 RC0-MT005 BM797505 K-EST0080 CA387791 669857 NC AW416284 51479 MAR AZ596456 1M0409318 BU821792 UB28CPA01 AW817973 QV0-ST024

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GSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon nigroviridis
Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Tetraodon.
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AL289558
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Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone
108120 of library G from Tetraodon nigroviridis, genomic survey
                                        Estimate of human gene number provided by genome-wide analysis using Tetraodon nigroviridis DNA sequence
Nat. Genet. 25 (2), 235-238 (2000)
Roest Crollius,H., Jaillon,O., Dasilva,C., Ozouf-Costaz,C., Fizames,C., Fischer,C., Bouneau,L., Billault,A., Quetier,F.,
                                                                  Roest Crollius,H., Jaillon,O., Dasilva,C., Bouneau,L., Fisher,C. Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,F., Saurin,W. and Weissenbach,J.
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AV364570 AV364570 AA256868 zr81e12.r AA328163 EST31604 BE368376 601220442 AA357910 EST66772 AW862535 QV0-CT038 BY268459 BY268459

AW011732 ul90f09

D81567 HIM173E01B AV640115 AV640115 AA323617 EST26423 T19220 d01011t Tes B1171742 RE13575.5 BY156357 BY156357 D53745 HUM118H10B

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web: www.genoscope.cns.fr)
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetracdon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetracdon.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Saurin,W., Bernot,A. and Weissenbach,v.
Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
freshwater pufferfish 70 00000 (2000)
                                                                                        Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further:
                                                                                                                                                                                      Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                  Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubudesel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ms60f12.r1 Stratagene mouse embryonic carcinoma (#937317) Mus musculus cDNA clone IMAGE:615983 5' similar to TR:E93245 E93245 ETN INSERT IN THE FAS APOPTOSIS GENE OF MRL-IPR/IPR. [1] ;, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (12-APR-2000) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genome Res. 10 (7), 939-949 (2000) 20359837
                                                                                                                                                Tel: 314 286 1800
Fax: 314 286 1810
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                                   Possible reversed clone: similarity on wrong strand
Seq primer: -28m13 rev1 ET from Amersham
                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house mouse)
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quality sequence stop: 1.
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/note="Genoscope sequence ID : COBG108BE10SP1-end :
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/mal_type="genomic DNA"
/db_xref="taxon:99883"
/clone="108120"
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Pred. No. 4.5e+03;
Mismatches 0;
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54 TGCAGCGTTCTC 43
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
12; Conserv
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BE004779
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MR2-BN0114-270400-004-g06_1 E
                                                                                                                                                                                                    Email: asimpson@ludwig.org.br
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR2-BN0114-270
400-004-g06 1&t3=2000-04-27&t4=1)
Seq primer: puc 18 forward
                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                      Tel: +55-11-2704922
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                     /organism="Homo sapiens"
/mol'type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0114"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2: XhoI; Cloned unidirectionally Primer: Oligo dT. P19 line. Average insert size: 1.0 kb; Uni-ZAPXR Vector; adaptor sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5' CTCGAGTTTTTTTTTTTTTTTT 3'"
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/dev_stage="embryonic"
/lab_host="SOLR (kanamycin resistant)"
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/db_xref="taxon:10090"
/clone="IMAGE:615983"
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'note="Organ: breast_normal; Vector: puc18; Site_1: Smal;
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USDA, ARS, Beltsville Agricultural Research Center
Bdlg. 200 Rm 2A, Beltsville, MD 20705, USA
Tel: 301 504 8416
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Mammalia; Eutheria; Cet
Bovidae; Bovinae; Bos.
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BACKWARD: GTTTTCCCAGTCACGACG
Plate: 98 row: B column: 5
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: tads@lpsi.barc.usda.gov
Single pass sequencing. Bases c
v0.980904.e. Vector identified
and _minmatch 12 options.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the Bos taurus gene index Mamm. Genome 13 (7), 373-379 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Analysis of bovine mammary gland EST and functional annotation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Quackenbush, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sonstegard, T., Capuco, A.V., White, J., Van Tassell, C.P., Cho, J., Sultana, R., Shade, L., Wray, J.E., Wells, K.D. a.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BG691216.1 GI:13933036
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 bp 340278 BARC 5BOV Bos taurus cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12140684
                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAGCGTTCTC 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 121)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 504 8416
301 504 8414
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                                                                                                                                18
                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                            /clone_lib="BARC 5BOV"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
Library made from pooled mRNA isolated from mammary
tissues at eight physiological, developmental, and disease
states."

3 6 9 21 t
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                                                                                                                                                                                                                                        /tissue_type="pooled"
/lab_host="DH108"
                                                                                                                                                                                                                                                                      /mol_type="mkwa
/db_xref="taxon:9913"
                                                                                                                                                                                                                                                                                               organism="Bos taurus"
|mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 12; DB 10; 100.0%; Pred. No. 5.7e+03; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                    0
                                                    Score 12; DB 10;
Pred. No. 5.8e+03;
                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 called and alt_trimmed with phred by cross_match with the -minscore 18
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5', mRNA sequence.
                                                                     Length 121;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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BASE COUNT
ORIGIN
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BH759248/c
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                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                               Query Match
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                                    BH759248 174 bp DNA linear GSS 12-MAR-2002 KG00610-3prime Drosophila melanogaster P(SUPOr-P) P element insertion lines Drosophila melanogaster genomic Sequence recovered from 3' end of P element, genomic survey sequence.
                                                                                                                                                                                                                                                                                          12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Bjorn Andersson
Department of Genetics and Pathology
Uppsala University
Rudbeck Laboratory, SE-751 85, Uppsala, Sweden
Tel: 46 18 471 4107
Fax: 46 18 471 4808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Trypanosoma; Schizotrypanum.

1 (bases 1 to 169)

Kluge,S., Edwards,K.E., Nilsson,D., Bontempi,E.J., Myler,
,K., Ghedin,E., El-Sayed,N.M. and Andersson,B.

Clustering and analysis of BAC-end and GSS sequences from
BH759248
BH759248.1 GI:19352487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: bjorn.andersson@genpat.uu.se
Clones are derived from the Trypanosoma cruzi CL-Brener BAC library
TC3. For clone availability, please contact Dr. Bjorn Andersson at
Uppsala University (bjorn.andersson@genpat.uu.se).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Other_GSSs: TC3-3E5.TP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Trypanosoma cruzi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BH194564.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seq primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Trypanosoma cruzi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             survey sequence.
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                                                                                                                                                                                                                                                                                                              Similarity
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                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                        /Clone lib="TC3"
/clone lib="TC3"
/clone lib="TC3"
/note="Vector: pBeloBAC11; Site_1: Hin dIII; Constructed
for Uppsala University by Marie-Christine Le Paslier in
the laboratory of Denis Le Paslier at the Centre d'Etude
du Polymorphisme Humain (CEPH), Paris, France. Briefly,
Trypanosoma cruzi CL-Brener agarose embedded DNA (obtained
from Dr. Franco da Silveira) was partially digested with
Hin dIII. High molecular weight fragments were ligated in
pBeloBAC11 digested with Hin dIII. The average insert
size is 100 kb. Total clone coverage: approx. 33 X the
haploid genome."

30 a 38 c 51 g 50 t
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/strain="CL Brener"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone="TC3-3E5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     db_xref="taxon:5693"
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                                                                                                                                                                                                                                                                                                            100.0%; Score 12;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                              DB 28;
6.5e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA linear GSS 24-OCT-2001 genomic clone TC3-3E5, genomic
                                                                                                                                                                                                                                                                                                                                 Length 169;
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TITLE
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COMMENT
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SOURCE
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AUTHORS
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VERSION
KEYWORDS
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BQ419254
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ORIGIN
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 137
                                                                            Clark,M., Johnson,S.L., Lehrach,H., Lee,R., Li,F., Marra,M., Eddy,S., Hillier,L., Kucaba,T., Martin,J., Beck,C., Wylie,T., Underwood,K., Steptoe,M., Theising,B., Allen,M., Bowers,Y., Person,B., Swaller,T., Gibbons,M., Pape,D., Harvey,N., Schurk,R., Ritter,E., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Levis,R., Hoskins,R., Liao,G., Mozden,N., Tsang,G., He,Y., Kar,,G., Bellen,H., Rubin,G. and Spradling,A.
The Berkeley Drosophila Genome Project Gene Disruption Project
                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                     BQ419254
BQ419254.1 GI:21124455
EST.
                                                                                                                                                                                                                                                                                                                                                                                BQ419254 181 bp faa36e08.yl zebrafish fin day3 1 IMAGE:5911382.5', mRNA sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence recovery method was inverse PCR.
Sequence orientation is forward strand relative to 5' end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Berkeley Drosophila Genome Project
University of California, Berkeley
LSA Building, Berkeley, CA 94720-3200,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished Contact: Ge:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

1 (bases 1 to 174)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Drosophila melanogaster (fruit fly)
Drosophila melanogaster
                                                                                                                                                                                                                                                                             Danio rerio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: gerry@fruitfly.berkeley.edu
                                         WashU Zebrafish EST Project 1998
                                                                                                                                                                                                                                                                                             Danio rerio (zebrafish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Class: transposon-tagged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recognition sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCAGCGTTCTC 126
                                                                                                                                                                                   (bases 1 to 181)
                                                             Wilson, R.
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Stephen L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gerald Rubin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (clone lib="Drosophila melanogaster P\{SUPor-P\} P element insertion lines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
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Pred. No. 6.5e+03;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                        regeneration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 174;
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CDNA clone
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RESULT 8
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                                                                                                                                             Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
S2 Boeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВМ854919
K-EST0137622 S21SNU520 Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: 314 286 1800
Fax: 314 286 1810
Email: zbrafish@watson.wustl.edu
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
                                                                                                                                                                                                                                                                                                                                                               Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.I
Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA sequence.
                                                                                                Email: yongsung@mail.kribb.re.kr
Plate: 58 row: D column: 08
                                                                                                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                           Kim, Y.S.
                                                                                                                                                                                                                                                                                                                    21C Frontier Korean EST Project 2001
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Location/Qualifiers
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                                                                      quality sequence stop: 190
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/sex="mixed male and female"
/tissue type="3 day fin regenerates"
/lab_host="B. coli XLOLR"
/clone_lib="zebrafish fin day3 regeneration"
/clone_lib="zebrafish fin day3 regeneration"
/note="Vector: pBK-CMV; Site_1: EcoRI; Site_2: XhoI; 1st
strand_cDNA primed with (GA)TOACTACTCTGAG(T)18, followed
by second strand synthesis, and ligated to 5' adapter (5')
-aattcggcacgag-3', 3'-gccgtgctc-5'. cDNA was cloned
directionally (EcoRI/XhoI) into Stratagene Zap express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lambda phage arms. Mass invivo excision done to obtain inserts in pBK-CMV phagemid."

47 c 39 g 32 t
/organism="Homo sapiens"
                                             Location/Qualifiers
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NU520-58-D08 5',
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                                                                                                                                                  cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 282 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 201)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
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                                                                                                                                                                                                                                                                                                                                              Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael
R. Emmert-Buck, M.D., Ph.D.
_CDNA_Library Preparation: M. Bento Soares, Ph.D., M. Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
                                                                                                                                                                                                                                                                                                                           Bonaldo, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                            Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
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organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"
                                                                                                      Location/Qualifiers
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/cell_line="SNU-520"
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sapiens cDNA clone IMAGE:1941810 3',
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KEYWORDS

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Score 12; Pred. No.

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Length 211;

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Query Match 100.0%;
Best Local Similarity 100.0%;
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CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.B. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 1701 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                          High quality sequence stop: 1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D.
Email: cepmail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D.,
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
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1 (bases 1 to 211)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/note="Vector: pT/73D-Pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Eco RI; Plasmid DNA
from the normalized library NCI_CGAP_GC4 was prepared, and
ss circles were made in vitro. Following HAP purification,
this DNA was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from a pool
of 5,000 clones made from the same library (cloneIDs
1257096-1258631, 1469064-1470983, and 1475592-1476743).
Subtraction by Bento Soares and M. Fatima Bonaldo. "
a 36 c 64 g 61 t
                                                                                                11538-014"
1 56 C
                                                                                                                                           /clone lib="NCI CGAP Ut1"
/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Life Technologies catalog #:
                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db xref="taxon:9606"
/clone="IMAGE:2427448"
/closue_type="well-differentiated endometrial
adenocarcinoma, 7 pooled tumors"
/lab_host="DH10B"
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RESULT 11
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MEDLINE
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1 (bases 1 to 221)

Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221 bp mRNA linear
RCO-MT0059-210600-031-a08 MT0059 Homo sapiens cDNA,
BE831758
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Seq_primer: puc 18_forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence was derived from the FAPESP/LICR Human Cancer Project. This entry can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Simpson A.J.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Simpson, A.J. Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BE831758.1 GI:10264136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence tags
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                                                                                                                                                      Similarity
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                                                                   TGCAGCGTTCTC 123
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                                                                                                                                       Conservative
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63 c 49 g '
                                                                                                                                                                                                                                                      /note=Torgan: marrow; Vector: puc18; Site_1: SmaI; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196; 716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low
                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="MT0059"
                                                                                                                                                                                                                                                                                                                                                                                                                organism="Homo sapiens"
|mol_type="mRNA"
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Pred. No. 7.1
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CA387791/c
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                                                                                                                                                                                                                                                                                                                                                                   12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Kim YS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
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BM797505
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CA387791
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Genome Research Center
Genome Research Institute of Bioscience & Biotechnology
Korea Research Institute of Daejeon 305-333, South Korea
Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 235)
Rexroad, C.E. and Keele, J.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: yongsung@mail.kribb.re.kr
Plate: 77 row: B column: 01
High quality sequence stop: 227.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 227)

Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R.
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K-EST0080661 S22SNU16n1 Homo sapiens cDNA clone S22SNU16n1-77-B01
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                                                                                                                                                                             Oncorhynchus mykiss (rainbow trout)
                                                                                                                                                                                                                                                                                                                                           669857 NCCCWA 1RT Oncorhynchus
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//clone_lib="S22SNU16n1"
//note="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pT773-Pac; M.B. (1996), Genome Sources | M.B. (1996), Genome Sources | M.B. (1996), Genome Research 6(9): 791-806. RNA was prepared from harvested cells of SNU-16 culture. SNU-16 cell was obtained from Korean Cell Line Bank (KCLB). SNU-16 was established from Acrean Cell Line Bank (KCLB). SNU-16 was established from ascitic fluids of Korean patients by Park J.G. et al. (1990), Cancer Res 50: 2773-2780."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cell_type="Lymphoblast-like"
/cell_line="SNU-16"
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/mol_type="mRNA"
/db_xref="taxon:9606"
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                              mykiss cDNA clone 1RT164L05_B_F03
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TITLE
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AUTHORS
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 237)

Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., White,J., Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,R., Quackenbush, J. and Keele,J.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST.
Sus scrofa (pig)
Sus scrofa
                                                 FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
Plate: 24 row: F column: 6
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                           PCR PRimers
                                                                                                                                                           Single pass sequencing. Bases called and trimmed with phred v0.980904.e. Vector identified by cross_match with the -minscore 20
                                                                                                                                                                                                                        Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, US
Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                           Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AW416284.1 GI:6944166
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Seq primer: AGCGGATAACAATTTCACACAGGA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Single pass sequencing. Bases called trimmed with the aid of the trim_alt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: crexroad@ncccwa.ars.usda.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tel: 304 724 8340 x2129 Fax: 304 725 0351
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11876 Leetown Road, Kearneysville, WV 25430, USA
                                                                                                                                                                                                      Email: smith@email.marc.usda.gov
                                                                                                                                                                                                                                                                                                                        .2226715
                                                                                                                                               -minmatch 12 options.
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ilarity 100.0%;
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/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled tissue from brain, gill, liver,
spleen, muscle, and kidney."
a 63 c 88 g 49 t
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/mol type="mRNA"
/db xrefs"ttaxon:8022"
/clome="1RT164L05_B_F03"
/tissue_type="pooled"
                                 Location/Qualifiers
/organism="Sus scrofa"
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fa cDNA
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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 801 585 5606
Ffax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0
Plate: 0409 row: A column: 18
Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D., Weiss,R.
Mouse whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                       High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 238)
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1M0409A18R Mouse 10kb plasmid UUGC1M library Muclone UUGC1M0409A18 R, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
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/lab_host="DH10B"
/clone_lib="MARC_2PIG"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
/ibrary_made_from_pooled_tissue_from_testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
a 69 c 67 g 51 t
                Laboratory Mouse DNA Resource (http://www.jax.org/resources/documents/dnares/). The DNA (http://www.jax.org/resources/documents/dnares/). The DNA was bydrodynamically sheared by repeated passage through 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymucleotide kinase. Adaptor oligonucleotides were polymucleotide with T4 DNA polymucleotides were ligated to the blunt ends in high molar excess. The
                                                                                                                                                                         /lab host="E. Coli strain XL10-Gold, T1-resistant, F-" /clome 10th Mouse 10th plasmid UUGCIM library" /note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
adaptored DNA was purified and size-selected for a 9.5
                                                                                                                                                                                                                                                                                     /mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="UUGC1M0409A18"
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/db_xref="taxon:9823"
                                                                                                                                                                                                                                                                     'sex="Male"
                                                                                                                                                                                                                                                                                                                                                                             organism="Mus musculus"
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smid UUGC1M library Mus musculus
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BASE COUNT
ORIGIN
Search completed: January 20, 2004, 18:44:52
Job time: 776.603 secs
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                                                                                                               152 TGCAGCGTTCTC 163
                                                                                                                                                         1 TGCAGCGTTCTC 12
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                                                                                                                                                                                                                                                                                                                                                                           10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi[4732114]gb[AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
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